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ABSTRACT

The loss, deterioration, or atrophy of internal bonding has been found in large segments of the youth population: such youths are characterized by apathy and aimlessness regarding major life values and goals such as education, vocation, individuality, and social affirmation. Social disconnectedness in terms of the loss and deterioration of external bonds has also been found: opportunities for participation in social roles are closed to many youths who are branded as failures, stigmatized by parents, teachers, and peers, and relegated to marginal social roles. Findings regarding personal predispositions suggest that lonely adolescents tend to dislike themselves, to dislike others, to be passive, to feel powerless, and to feel uncomfortable in social situations. The loneliest youth exhibit less caring for their parents, teachers, other youth, their schools, and their own futures than do most other youth. Lonely youths see no real support in their environment: they therefore tend to associate with other failing and rejected youths, which may be a link in the development of delinquent peer groups. Data on the family environments of lonely youth suggest an absence of emotional nurturance, guidance, and support. A potential line for future research would be the study of the antecedents of powerlessness, external control, and passivity. (Author/CS)

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ADOLESCENT LONELINESS: AN EXPLORATORY STUDY OF SOCIAL AND PSYCHOLOGICAL PRE-DISPOSITIONS AND THEORY

VOLUME I

by

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CHAPTER 1

BACKGROUND AND PURPOSES OF THIS RESEARCH

BACKGROUND

In conducting a number of earlier studies of adolescent development and juvenile delinquency (Elliott et al., 1975, Brennan et al., 1977), we had been acutely aware of the importance of peer relationships, relationships to family, and relationships in school, etc. However, we had not thoroughly conceptualized the importance of loneliness. Within the framework of studying juvenile delinquency, control and strain theories had focused our attention on the erosion of social bonding, or alternatively, the ill-formulation of social bonds (via control theory). Although these perspectives directly examined social bonding (of both internal commitment bonds and external social integration bonds - see Elliott, Ageton and Kantor, 1978), we still did not turn our attention directly to the problem of loneliness. Throughout these various surveys of youth, a large mass of data was being collected which focused directly upon the social relationships of youth while omitting the study of the problem of adolescent loneliness. Other adolescent phenomena, such as running away from home, vandalism, drug abuse, and various other forms of delinquency and alienation, remained the primary focus of our attention.

The excellent book by Robert Weiss (Loneliness: Social and Emotional Isolation, 1973) provided the stimulus to the senior author of the present project to re-examine adolescent development within a framework of Weiss' two concepts of social and emotional isolation. Weiss' articulation of these two components of loneliness provided the impetus to re-examine the prior data sets with a view to operationalizing Weiss' two concepts. Additionally, in preparation for our initial research proposal, an extensive literature review was made to examine the general problem of loneliness and in particular the loneliness of the adolescent.

The initial discovery at this time was that the data sets at Behavioral Research Institute did indeed contain a large number of items which seem to address Weiss' two concepts of emotional and social isolation. Preliminary scaling analysis conducted for the purposes of the research proposal to NIMH revealed that groups of items within these two general areas of social and emotional isolation did indeed scale quite adequately with reasonable psychometric properties. A preliminary correlation analysis also revealed a fairly large number of extremely interesting correlations between these initial scaled measurements of emotional and social isolation and other aspects of youth development, such as self-concept, normlessness, and some forms of delinquency, etc. Thus it seemed as though a viable format existed for a fruitful secondary analysis of four large scale data sets on adolescent development which had used systematic sampling, and within which fairly good measurement scales existed across a large variety of domains of youth development (e.g. peer relationships, school relationships, levels of alienation and delinquency, family relationships, and so forth).

It was found in the literature review that the study of loneliness had been largely neglected throughout most of the social sciences. Fromm Reichman (1959) noted the almost total absence of loneliness as a topic within the professional psychiatric literature. Later, in a 1969 review, Leiderman pointed out the continuing neglect of this topic in the same psychiatric literature. Finally, bringing us more to the present, Weiss (1973) suggested that loneliness at that time remained largely unexamined in all of the social sciences; he wrote, "...it is not only in the psychiatric literature that loneliness stands as a neglected topic; there are even fewer discussions of loneliness in the literature of psychology and sociology." In another review specifically focusing on the area of contemporary humanistic psychology, Severin (1973) contended that loneliness was one of the underdeveloped areas within this branch of psychology. Finally, D'aboy (1972) in attempting to define loneliness through a conceptual

and philosophical analysis, suggested that the study of loneliness in a systematic manner was only in the initial stages and that much more research was needed. In regard to loneliness amongst adolescents, there were only a handful of articles with extremely weak psychometric measurement of the concept of loneliness. The problem was further compounded by the general use of biased, small, or unsystematic sampling. There also seemed to be a completely inadequate knowledge of the epidemiology and extent of loneliness amongst the adolescent population.

At the point of writing the original research proposal there were clearly weaknesses in our conceptual analysis of loneliness. This was coupled with a general absence of theoretical statements in the literature on loneliness. Hendricks (1971) concluded that although loneliness was an extremely common experience in everyday life, there existed considerable semantic confusion around the term. She also indicated that the academic study of loneliness was problematic due to this conceptual confusion. Bradley (1969), in another unpublished Ph.D. dissertation, pointed out that the term was being used for a considerable range of phenomena. Weiss (1973) similarly noted that a major problem was the lack of studies which identify various experiences of 'ordinary loneliness'. He wrote, "We are lacking, in short, in studies that would describe what loneliness is..." (p. 2), and later, "We still lack a secure taxonomy of types of loneliness." (p. 229) Other writers alluded to the problem of conceptual clarity.

Turning to theory, Leiderman (1969) suggested that loneliness had been neglected in the professional literature because there was no theory with which to study its various forms. Fromm Reichman (1959) adopted the opposite argument by contending that the absence of theory stemmed from the fact that virtually no work had been done on the subject. At the point of preparing our proposal we discovered a number of more recent theoretical statements. Particularly influential were those of Weiss (1973), Buhler (1969), Tanner (1973), and Lindenauer (1970). The theses by Bradley (1969), Hendricks (1970) and D'aboy (1972)

were particularly helpful in conceptual analysis of loneliness. Finally, at the early stages of our project (thanks to Robert Weiss), the excellent review by Peplau and Perlman (1977) became available to the senior author. This paper, laying out some of the preconditions for a social and psychological theory of loneliness, became of considerable importance during the course of our research. During the course of this project there have been a number of new publications around the topic of loneliness, including a symposium at the APA (1977) organized by Perlman and Peplau. All of these sources have been exceedingly useful in conducting the present research program. We are particularly indebted to the research team of Anne Peplau, Dan Perlman and others from UCLA.

PURPOSES

1. The Conceptualization and Measurement of Loneliness: The first purpose of this research was to examine the possibilities of appropriate scaling of various forms of loneliness. The different data sets included a large variety of items which pertained to family relationships, peer relationships, school relationships, and the youth's feelings about these relationships. We approached the problem of scaling utilizing both factor analytic methodology and also more conventional item analysis. Cronbach's Alpha and Scott's homogeneity ratio were routinely computed for each attempt to scale various forms of loneliness. The work towards the scaling of different forms of loneliness is reported in Chapter 3. The Office of Youth Development data set also fortunately provided a measure of self-reported loneliness. We utilized this in correlational and validation studies against the other forms of loneliness. In addition to the two basic forms of social and emotional isolation and self-reported loneliness, we also experimented with Buhler's concept of meaninglessness and the concept of identity diffusion. Both of these theoretically relate to loneliness (see Chapter 2).

The success of this criterion measurement stage was critical to our total project. Without adequate measures of the criterion variable of

loneliness it would have been pointless to continue with the project. Fortunately the various scales seemed to hang together reasonably coherently and the preliminary correlation analyses were encouraging in terms of construct validity for the two major aspects of loneliness. Also, the two forms of loneliness within the OYD data set correlated positively with self-reported loneliness.

2. The Incidence of Loneliness Amongst Adolescents: Following from the scaling of the criterion of variables our next major concern was to examine levels and proportions of loneliness within the youth population as a whole and within various segments of this population. An examination is made of levels of loneliness according to sex, age, social class, ethnicity, and other appropriate breakdowns. These are conducted both through straight mean scores, but also through ANOVA's frequency distribution, and so forth.

3. Establishing Correlates of Loneliness: Following on from the epidemiological analysis there is an examination of correlates of loneliness, and the traits of lonely youth in contrast to non-lonely youth. A rough division in this analysis is between personal variables as opposed to social interaction variables. For instance, in personal traits we examined issues such as self-esteem, value systems, interpersonal skills, and other personal or psychological factors. In social interaction issues we examined rejection by parents, rejection and failure in school, negative labeling, and various strain features which the youth may experience in interacting with the social environment. An emphasis was also placed on routinely examining sex and age differences.

4. Loneliness and Self-defeating Behaviors: The literature has indicated that loneliness may be related to a variety of self-defeating coping behaviors. The present data sets allow an extensive examination to be made between loneliness and some aspects of delinquent behavior; loneliness and drug abuse, loneliness and alcohol abuse, loneliness and aggressive violent behavior, loneliness and theft, loneliness and runaway, and so forth. We do not attempt to delineate all of the various

aspects and factors in youth development which we have correlated against the various forms of loneliness. An extremely large number of both personal and social variables were examined within the broad context of these four data sets. These are more fully delineated in the body of the present report.

5. Developing a Typology of Differential Forms of Loneliness: We argue in the theoretical chapter that loneliness takes a number of different forms, and these different forms may co-exist in various patterns within any particular individual adolescent. Therefore, one general objective is to develop a taxonomy of the adolescent population in terms of their experience of multiple forms of loneliness. This taxonomy is constructed utilizing multivariate taxonomy construction methods. This analysis contributes to the general epidemiology of loneliness in the sense of providing a multivariate mapping of the experience of loneliness across the youth population. Whereas most epidemiological studies utilize univariate frequency distributions, the present approach both clarifies the complex interactions between various forms of loneliness and the existence of different syndromes of loneliness in the youth population. It also indicates the relative frequency with which each of these syndromes or 'types' exists.

6. Predicting Loneliness: The correlational analysis and the group comparisons of lonely versus non-lonely youth may indicate some variables which are highly associated and perhaps predictive of loneliness. The present objective, however, is to go beyond bivariate correlations and to examine multivariate prediction of adolescent loneliness. Linear approaches to prediction were utilized using multiple regression analysis. Additionally, however, some causal modeling and multivariate prediction utilizing taxonomies were attempted. One outcome of this was a predictive taxonomy in which the adolescent population was categorized into various types utilizing the social and psychological predictor variables. This particular taxonomy allows the identification of 'high risk' and 'low risk' types of youth in terms of loneliness.

7. Testing Some Provisional Theoretical Models: The above explanatory or predictive typology provides an initial approach to unraveling different pathways into loneliness. However, we also attempted to conduct more explicit model testing (Chapter 10) by subjecting some preliminary models to causal path analysis.

8. Integration of All of the Findings: We attempt to integrate these various findings in recommending a 'most plausible model of loneliness'. At this point, we attempt to develop some new directions of research on adolescent loneliness.

A Note Regarding Criterion Variables and Theory

The two criterion variables of social and emotional isolation are relatively well measured in the present data sets, but in no way can be regarded as final or complete measures of these two concepts. The workers at UCLA have recently proposed a short scale to measure these forms of loneliness. See Peplau, Perlman and others (1977). It may be noted that the empirical correlations between emotional and social isolation are so high that it may be difficult to retain these two conceptual measures as two separate operational scales. Correlational work and factoral analytic work tend to suggest that the two separate emotional and social dimensions may be less powerful than the separation of social context dimensions, such as loneliness in the school, loneliness in the home, and loneliness amongst peers. Further work should be done to examine the fragmentation of loneliness into its various operational forms. In the present research proposal, however, we concentrate purely upon social and emotional isolation and make no attempt to measure loneliness across different social contexts.

We acknowledge that the four data sets utilized provide variables which cover a large spectrum of variables dealing with youth development. A large variety of correlations and traits have been examined. Some of these have been alluded to in the prior literature on loneliness. Others, however, have not. In keeping with our intent to do exploratory analysis we have examined the correlates of loneliness across

almost all the aspects of youth development which were embodied into the four previous research projects. We therefore have a rather eclectic set of variables which cover a variety of aspects of the various inputs to loneliness. A continuing task will be the theoretical understanding of many of these new findings.

CHAPTER 2

A REVIEW OF LONELINESS LITERATURE AND SOME THEORETICAL PROPOSALS

Reviewing the literature on loneliness reveals a bewildering range of conceptualizations (Hammer 1972, Greenwald 1972, Weiss 1973, and others). We will not attempt an exhaustive discussion in this report. We will deal with particular formulations of loneliness which are reasonably well defined, and have particular relevance to the situation of the adolescent.

LONELINESS AS A 'DEFICIT' IN SOCIAL RELATIONS

A number of writers have argued that loneliness can be conceptualized as a deficit in a person's social interactions or social network. A difference score (or disjunction) between 'desired levels' and 'actual levels' in social relations would represent individual levels of loneliness. Loneliness emerges when the achieved level of social relations is less than the desired level.

Advantages of this approach stem from the fact that there seems to be no agreed upon 'optimal level of relations', and therefore no way to specify absolute thresholds below which persons could be defined as 'lonely' (Peplau and Perlman 1978). Since 'achieved', 'desired' and 'optimal' levels of contact may vary between different persons it has been argued that loneliness is not identical with sociometric measures of social isolation.

IDENTIFYING THE DEFICITS: WHAT IS GAINED/LOST IN SOCIAL RELATIONS

Loneliness, to the extent that it stems from faulty, inadequate, or insufficient social relations, turns our attention to the benefits (or provisions) of such relations. Different aspects of relational benefits or pay-offs may be missing, and such deficits may lead to different kinds of loneliness. Weiss (1973), Slater (1970), Sullivan

(1953), Middlebrook (1974) and others, have delineated a number of benefits from social affiliations. These include:

1. Giving and Receiving Nurturance

Without other people, persons may miss the feeling that they are loved and needed. A related deficit is the inability to care and to give love. Persons may need to give as much as they need to receive love. Weiss (1974) suggests that the opportunity to give nurturance is particularly provided by relationships in which the person assumes responsibility for the well-being of another.

2. Social Integration

Social relationships provide opportunities for participation, companionship, sharing interests and experiences. In addition, social integration tends to structure a person's life, and provide excitement, interests, etc. Isolation is boring. There is a higher level of stimulation within social interaction.

3. Reassurance of worth

Affirmation of worth and competence in various social roles is provided by relationships. Such feedback is seen as critical for a variety of developmental tasks subsumed within the general themes of the development of self-esteem and identity. The desire for reassurance is one aspect of a general theory of 'ego-maintenance'. A person wishes to know whether they are 'good enough' for the given standards of the role. Deficits would likely relate to: role conflict; identity problems; inadequate ego-development; alienation; meaninglessness, and so on.

4. Self-understanding

Persons frequently attempt to clarify and validate their own feelings, thoughts and responses, in interaction with others. In uncertainty or confusion individuals turn to the opinions and evaluations of others to validate and check on their own. Persons who are highly similar to the subject, who are particularly intimate with the subject of who have high authority will provide important baselines for the evaluation of the subject's own feelings, ideas, and so forth. Isolation would clearly serve to deny the person such feedback and clarification. This function may be of particular importance to the adolescent

in the struggle for independence from parents (see Rappoport 1972, p. 298). New perspectives, interpretations, and peer support all help the adolescent in countering the weight of the parents.

5. Guidance and Information for Decision-Making

Weiss (1973) has indicated that an important function of relationships is to provide information and guidance to the person regarding many practical decisions and processes. Trustworthy peers and persons with particular expertise in the relevant problem-areas are particularly important for this aspect of relation. Isolation clearly cuts the person off from such help and guidance.

6. Overcoming Separateness Through Attachments

A provision of certain special intimate relationships (e.g. marriage) may be a sense of emotional attachment or belongingness, giving a feeling of oneness, security and comfort (Weiss 1973). The drive towards 'reattachment' may stem from an awareness of separateness. Many writers have argued that feelings of loneliness stem basically and inevitably from the human awareness of separation (Loucks 1974, Tillich 1952, May 1953, Fromm 1956, and others). Sartre (1965) suggests that men flee in anguish from this existential loneliness of separateness. A close intimate emotional relationship is one way of dealing with or avoiding this sense of separateness. The failure to achieve such close emotional attachments is potentially associated with the emergence of emotional anxiety over separation.

7. Opportunities/Outlets for the Use of Personal Powers and Abilities

Meyeroff (1974) draws attention to a further provision of relationships. This is the tendency of 'caring relationships' to draw upon, or evoke, the unique talents of the person. Meyeroff develops the concept of 'caring' for certain others (either persons, causes, vocations, etc.) whom he calls 'appropriate others'. The particular characteristics of such 'appropriate others' is that they have an evocative power to draw out intense affective commitment

coupled with a particular set of appropriate challenges (for skills, talents, energy, patience, etc.) which have high suitability for the person who enters into such a relationship. Meyeroff gives examples such as an artist to his art, musicians to music, mother to child, and so on.

THE PROBLEM OF MULTI-DIMENSIONALITY AND OPERATIONAL DEFINITIONS OF LONELINESS

The problem of loss of meaning in dealing with such an intrinsically subjective experience as loneliness is serious. Concepts such as 'separation', 'deficit', or 'loss' can be applied to a multiplicity of bonding referents and human aspirations. The operational measurement devices which have been proposed seek to apply psychometric measurements to concepts such as emotional and social isolation, meaninglessness in various value domains, and so on. The contentual richness of 'loneliness' probably is violated by many measurement schemes which have been employed. Each of the specific sub-component measures (social isolation, emotional isolation, identity problems, meaninglessness, etc.) attempts to be a homogeneous measure in itself. They exclude the other distinctive elements as far as is possible within the framework of psychometric theory.

Self-reported 'loneliness' on the other hand makes no attempt to define the status of loneliness to the respondent. It does, therefore, tap into ALL (or any) subjective experiences which the respondent may define, or interpret, as loneliness. It will, however, be a hodge-podge of differential meanings, associations, and feelings across samples of respondents. This concept is critical, however, as a general measure of loneliness. In later sections of this report we will examine its correlations with the other, more psychometrically defined, sub-components of loneliness.

MAJOR FORMS OF LONELINESS

The enormous mass of philosophical, psychiatric, psychological, and sociological literature on loneliness will not be reviewed within the

present report. However, a number of major forms of loneliness have been delineated. We will summarize some of these main themes.

Emotional Isolation

This is seen as stemming from an absence of, or deficits in, a close special relationship (Weiss 1973). It may appear particularly when such relationships are lost through, for example, romantic separations, divorce, or bereavement. Such traumatic losses, however, although they bring the state of emotional isolation into sharp relief, represent only one pathway into this state. Adolescents often acknowledge the feeling of 'being lonely in a crowd'. They may have many peer relationships and be well integrated into a social network, yet at the same time they may not have established a special intimate relationship. The absence of such a relationship represents a deficit state, and may be accompanied by: a sense of loss; a yearning to achieve this type of relationship, and (often) a hyper-sensitivity to persons who potentially offer such attachments (Weiss 1973). Emotional isolation may also appear within the context of on-going intimate relationships such as marriage. Many factors may be involved in the erosion of such relationships, e.g. falling levels of trust, poor communication, insufficient time spent together, divergence of values, differing directions of growth, etc. Thus an on-going marriage may develop severe deficits in the degree to which the two partners are able to experience feelings of intimacy, emotional attachment, or belongingness. The inability of particular persons to achieve or maintain intimate emotional relationships would theoretically pre-dispose that person to chronic emotional isolation. This concept, furthermore, should probably be regarded as a continuum rather than a dichotomy. There are a multiplicity of ways in which intimate emotional or romantic relations may be undermined - and many of these are a matter of degree rather than either/or dichotomies. Buber (1958), for example, outlines many ways in which I-Thou relationships may be degraded into I-It relationships (see also the literature on marital counseling and therapy).

Social Isolation

Weiss sees social isolation as loneliness stemming from the frustration of needs for belongingness and 'social connectedness' to a broader primary group or set of peers. Seeman (1975) similarly argues that social isolation emerges when the quest for 'community' fails. This quest may fail in a number of ways:

- when there is no sense of identity or attachment to a specifiable social collectivity
- when there are serious deficits in consensus regarding normatively integrating behavior, and confusion regarding standards of right and seemly conduct
- when there are distinct shortfalls in the availability or accessibility of group or community activities, associations or friendship networks

Spiritual Loneliness: The Problem of Meaninglessness

Gaev (1976), Fromm (1956), Buhler (1969), and many others, describe a form of loneliness which seems to result primarily from deficits in the meaningfulness or significance of a person's life. Spiritual loneliness is generally seen to emerge when the need for meaning is frustrated (see Gaev 1976 Frankl 1959, Fabry 1968, Moustakas 1961). These writers allude to a human struggle for meaning, values, and transcendent purposes, and see this as a component of the 'spiritual aspect' of persons. Frankl (1959) refers to man's 'will to meaning'. To the extent that this 'will to meaning', or 'struggle for significance', is frustrated, extreme conflict seems to arise. Terms such as: existential frustration; inner emptiness; existential vacuum; meaninglessness; despair; aimlessness, and so on, are suggested as the result of the failure or frustration of this search.

Rollo May (1953) explores an additional dimension of this form of loneliness. In examining the struggle to achieve significance (or 'being') he relates the search for self-actualization to the state of loneliness. If this struggle fails, if potentialities, talents, and energies remain unused and unfulfilled, he argues that loneliness,

boredom, and emptiness will result. The search for 'being' or 'significance' is seen as overlapping the search for meaning. Failure, or deficit, in any of these quests, will imply a deficit in the meaningfulness of the person's life. This again raises the difficult question of minimal thresholds below which dissatisfaction, meaninglessness, and loneliness might be expected to appear.

To the extent that the adolescent is not free to pursue his own ends and potentialities, is thwarted in the search for actualization or significance, then he or she may be overtaken by a sense of alienation, loneliness, and boredom. Erikson's identity stages of 'diffusion' and 'foreclosed identity' (see Marcia 1966) appear also to be consistent with this form of loneliness.

Existential Loneliness: The Loneliness of Separation and Ultimate Detachment

A form of loneliness known as 'existential loneliness' is seen as stemming from the inevitable human condition. Emphasized in this form is man's total responsibility for his own life and in particular, for decision-making regarding how to live that life. Sartre emphasized man's abandonment and his personal responsibility for his life. He argued that man flees this particular state and that the acknowledgment of separation brought on the anguish of loneliness. Dread and anguish were seen as accompanying the awareness that man was totally alone and totally responsible. Heidegger similarly emphasized these conditions, including the awareness of mortality and death. This type of loneliness is therefore seen as inevitable and stems basically from the inescapable isolation of humans. Ferreira (1962) indicated that such loneliness could stem from a feeling of 'no relationships'. In Buber's terms, the 'I without the thou'. May (1953) similarly alluded to 'the inner sanctum for each man must stand alone'. Burton (1961) similarly sees loneliness as synonymous with complete independence and unrelatedness to others.

Thus the roots of the Existential form of loneliness are in man's self-awareness, awareness of individuality, separation, and of his

ultimate aloneness. Gaev (1976) points out that such existential loneliness is an experience which everyone shares.

Eric Fromm also develops this theme of separateness. He argues that loneliness emerges from the human awareness of man as a separate entity, of mortality and death. This awareness of aloneness, finiteness, separateness and helplessness before the forces of nature apparently lead to the experience of life as an 'unbearable prison'. Fromm believed that liberation from this state is primarily through love, caring, reaching out to others, and through belongingness.

Self-Estrangement and Separation from Self

This form of loneliness focuses upon themes such as separation from self, denial of 'true' self, avoidance of the reality of self, self-alienation, loss of self, and so on. The literature is replete with examples and processes by which men can be 'out of touch' with themselves. A particular form of this stems directly from the anguish of existential loneliness.

The Existentialists suggest that humans must recognize their separateness and unattachment before it is possible to realize any true relatedness or communion. To the extent that such reality is avoided, the person is led into frantic self-alienation. The Existentialists argue that fear and anxiety are the major reasons for the attempt to avoid this awareness of separation. Distortions, dependencies, manipulation, and self-estrangement are the suggested results of this failure to acknowledge reality. Sartre (1965) argues that such avoidance leads to a life of 'bad faith'. Heidegger (1962) uses the term 'inauthentic'. He sees the inauthentic mode of living as a denial of the basic human condition. There is a constant attempt to avoid awareness, responsibility and freedom. The person in this mode is theoretically expected to be unable to be a 'genuine self' in participation with others (May 1953, Burton 1961, Moustakas 1961 and others). Relationships are seen as deteriorating into escapes, dependencies, and strategies of 'self-protection'. Hammer (1972), for example, elaborates on the manner in which authentic relatedness may be undermined by the goals of self-protection, ego-support, and avoidance of reality.

Creative Solitude and the Constructive Side of Aloneness

A number of writers describe a form of aloneness which is not experienced as fearful, anxious, empty, etc. This is variously referred to as: creative solitude; constructive loneliness; meditation; occasionally it is referred to as existential aloneness, and so on. The common theory, however, is that it is seen as a constructive, dignified, and enriching experience.

There seems to be no clear understanding or delineation of all of the functions and forms of this aspect of aloneness. It would appear to require an analysis and synthesis of topics such as: the psychology of crowding and privacy, the functions and types of fantasy, the nature and functions of meditation, cultural attitudes towards solitude and other related topics.

Moustakas (1961) in particular emphasizes the richness of this experience. He argues that the struggle for 'being' must be conducted through 'self-dialogue'. A retreat 'within' is seen as a requirement to experience the deepness, values, and truths concerning the individual. He mentions the 'joyous experience of self-discovery'. Greenwald (1972) similarly mentions the 'gratifying and enriching experience' of being in this form of aloneness.

The constructive aspects of this form of aloneness appear to be the following:

- opportunities for self-knowledge, self-nurturance, personal growth,
- opportunities for the exploration of personal values
- greater recognition of the reality of the human condition, and particularly the features of existential loneliness
- an avoidance of the misguided and ultimately doomed tactic of running away from loneliness
- an escape from the demands of everyday life
- sensations of peace, joy, gratification and dignity, richness, non-corruption, completeness

Winnicott (1965) describes a related phenomenon, i.e. the 'capacity to be alone'. This relates to the ability to enjoy and constructively utilize the times of aloneness.

A vital aspect of the studies of solitude is that it appears that most persons require certain amounts of privacy in order to remain human and dignified. The loss of such 'alone times' is seen as disruptive, and ultimately dehumanizing.

Adolescents in particular seem to require such states of 'withdrawal' and 'privacy'. Time to get away to think, work out problems and frustrations, to recoup energies, to deal with personal confusions, to indulge in fantasies, dreams, and so on, are a perennial feature of adolescence.

SYMPTOMS AND MANIFESTATIONS OF ADOLESCENT LONELINESS

Peplau and Perlman (1977), Weiss (1973), Loucks (1974), Teicher (1972), Leiderman (1969), and others provide information on the various symptoms of loneliness. It remains unfortunately true, however, that there is no clear organization or differentiation between the various types of loneliness in terms of their related symptoms. The reasons for this seem to be:

1) the recency and difficulty of reaching conceptual clarification between the different forms of loneliness;

2) the possibility of substantial overlap of symptoms of the different forms of loneliness;

3) the possibility of the joint presence of multiple forms of loneliness in those persons identified as 'lonely'.

Acknowledging this set of problems the following is offered as a provisional ordering of types of loneliness, and the related symptoms and motivational states.

1. Existential Loneliness

Symptoms: Fear, dread, anguish, terror, etc.

Motivations: Desire to escape, to avoid acknowledgment, to create escape routes through other intense attachment

bonds, e.g. values, causes, religions, cults, groups, intense emotional relationships, and so on. A desire to merge with other people or symbolic values, and to dull the sense of separation and fear of finitude.

2. Emotional Isolation

Symptoms: Feelings of unhappiness, emptiness, frustration, anger, depression, of not 'being needed', of emotional aloneness, a sense of loss, of not being cared for, of being emotionally unfulfilled, of 'no-one' to care for, of disconnectedness, of 'something missing', of no-one to be close to, yearning to escape the loneliness, etc.

Motivations: hypervigilance regarding emotional attachments, desires to initiate attachments and to affiliate with others - especially in settings which might be conducive to finding such an emotional attachment.

3. Social Isolation

Symptoms: Sense of 'being on the outside', of 'missing out', of being passed by, boredom, depression, unhappiness, of having no sense of group identification, or group commitments, or a 'set' of friends or peers. Often confusion in regard to the 'kind of people' one would want to affiliate with, a loss of social belongingness, and often an impaired sense of 'social identity', etc.

Motivations: Desires to affiliate with people, especially peers, colleagues and friends, to share problems and 'struggles to find out' what's happening, to be brought up to date, to have reassurance regarding one's social commitments and one's performance of multiple social roles, desires to affiliate with people who are doing the same tasks and who have made similar commitments, desires to find 'new friends', to move to a 'new place' where appropriate peers may be found, desires to up-grade friendships, and to 'see more of' certain people, etc.

4. Spiritual Loneliness

Symptoms: A sense of artificiality, self-estrangement, excessive consciousness of 'role-playing', and lack of commitment to roles, aimlessness, boredom, emptiness, hollowness, alienation. A feeling of being unchallenged, un-engaged and unfulfilled; a sense of the 'loss of one's life'. Conflict, confusion, and doubt over one's commitments, self-hatred, intrapunitiveness, and dissatisfaction with self, a strong feeling of unrealized potential, excessive day-dreaming, distractability, etc. Alternatively anger, rebellion, frustration, and extrapunitiveness.

Motivations: Desires to find new meanings, values, goals, purposes and relationships. Desires to drop-out, to make new starts, and to change in various ways. Strong dissatisfactions with various aspects of the self, and often frantic attempts to either upgrade or change (e.g. excessive faddism, fashion-following, successions of new cults, gurus, spiritual searches, etc.) Over the longer term, motivations may lapse into helplessness, regret, apathy, and despair, as the person gives up and is immobilized. A further set of motivations appears to be rigid, authoritarian defensiveness, in regard to the commitments and purposes which have been adopted.

We acknowledge the provisional and tentative nature of the above descriptive taxonomy. There simply does not appear to be sufficient systematic description in this area. A further compounding difficulty, pointed out by Peplau and Perlman (1977) is the changing nature of the symptoms and manifestations of loneliness depending on whether it is perceived as a temporary or chronic state, and whether the person attributes internal or external causation regarding their own personal circumstances of loneliness.

All of the various sets of symptoms and motivations mentioned above appear to be characteristic of adolescents as well as adults.

EVIDENCE FOR THE SEVERITY OF LONELINESS AT ADOLESCENCE

This literature is extremely scattered and it must be conceded that loneliness per se, does not form a major focus of any of these studies. However, a diverse range of findings from many different sources provide compelling evidence that loneliness is a major social problem among youth.

Saks (1974) in reviewing the problems of the hundreds of young people who seek help through the Traveller's Aid Society, found that drug addiction, pregnancy, family problems, unemployment and loneliness were the most frequently mentioned problems. In a similar study of youth who seek help, Bleach and Claiborn (1974) studied the problem of those young people who telephone crisis center hot-lines. The results were startlingly similar to those found by Saks. Family problems, loneliness, pregnancy and drug addiction were found to be the most frequently mentioned problems.

Studies by Reinhold (1963), Phillips (1972) and Christiaens (1964) are representative of a large group of studies which point out the severe loneliness of students. Reinhold found that among 1290 university students, 19.4% had sought mental health services. He identified lack of confidence, loneliness, apathy, and problems of inter-personal behavior as most prevalent. Phillips (1972) on the other hand attempted to assess the 'general mood' of students. She found that boredom, loneliness, and a sense of futility were the most prevalent problems. Examining the problem of student failure, Christiaens (1965), as mentioned earlier, found that loneliness, in conjunction with certain critical inter-personal behavioral problems (i.e. romantic relationships and family) were extremely debilitating and were related to a loss of motivation.

Finally, the review of the relationships between loneliness and other psychological problems has indicated that many classes of troubled youth are prone to painful loneliness, e.g. young drug addicts (Holzner and Ding, 1973; Pittel, 1971; Konopka, 1966), adolescent suicide (Horton 1973), delinquency and prostitution (Konopka, 1966), adolescent alcoholics (Rosenberg, 1969), sexual exhibitionists among adolescents (Basquin, 1966), shoplifters and thieves (Russell, 1973; Tanner, 1973).

MAJOR DEVELOPMENTAL CHANGES WHICH PRECIPITATE/CONTRIBUTE TO ADOLESCENT LONELINESS

Adolescence seems to represent a stage at which a number of developmental factors converge to produce an emergence of feelings of loneliness. We will briefly describe some of these precipitating factors and conditions which appear to contribute to the loneliness of the adolescent. Some of these processes contribute to a loss or deficit in emotional and social attachments, while others represent the emergence of new requirements for social and emotional relationships. Other factors emerge primarily from the social position of the adolescent.

1. Changes in the Emotional Attachment to Parents (Loss of an Attachment Bond)

A number of writers allude to the general change in relationships between child and parent in early adolescence, e.g. Konopka (1966), Coleman (1972), Douvan (1970) and Weiss (1973). This transformation of the attachment bond to parents seems to represent a change leading to a profound disruption in the emotional life of the adolescent. Weiss (1973) describes the process as follows:

> "Loneliness proper becomes a possible experience only when, in adolescence, parents are relinquished as attachment figures. Then it is possible for individuals to scan their social worlds for attachment and see only unsatisfactory friendly faces."

In Konopka's research with young female juvenile delinquents, a recurrent finding was that severe loneliness and many inter-personal relationship problems started at puberty. She found that it was especially painful for girls to move out of childhood. From the perspective of Weiss's concept of emotional attachment the transformation of the relationship to parents, especially the loss of this primary emotional attachment, would imply an entry into a state of emotional isolation. The detachment from parents is simultaneously a growth process and an entry into a deficit relation state.

There is much variation in the precise age at which children transform this primary attachment to their parents. It may happen, in general, between the ages of 10 to 14, although it is clear that for many youth there may be an unusual delay with strong emotional dependence on parents remaining into the middle or late teens (Walker, 1976).

2. The Attenuation of Time-structuring by Parents

During childhood the parents, by and large, take almost full responsibility for the structuring and management of the life and time of the child. Tanner (1973) explores this theme in some depth, indicating that in early adolescence there is a rapid reduction in parental control of time-structuring. He indicates that aside from parental input to time and activity control, our basic institutions, e.g. school, work, church, etc., etc., control large components of our time.

Appropriate time-structuring in order to bring about some consistency between personal values/goals and the use of time is an important factor in the study of loneliness. The literature on loneliness has pointed out that an extremely common feature of lonely persons is a sense of aimlessness, boredom, feelings of nothing to do, together with a restlessness and yearning for something meaningful (see Tanner 1973; Buhler 1969; Lindenauer 1970).

This type of loneliness is therefore different from the purely 'relational deficit' of emotional or social isolation mentioned by Weiss (1973) and relates directly to a sense of meaninglessness and/or a failure to satisfy certain personal values and goals. It is a major feature of spiritual loneliness.

Time structuring can vary in types according to whether it is active or passive, consistent or inconsistent with one's values, structured fully or relatively empty, and so on. The responsibility for appropriate time structuring would be a new challenge to the adolescent.

3. Changes in the Capacity for Emotional Relationships

Physiological growth usually leads to a broadening and maturation of the emotional sensibilities of the adolescent. Emotional capacities for deeper intimate relationships develop rapidly during this time.

Konopka (1966), Collier and Lawrence (1951) and others indicate that these changes bring about strong needs for new and more varied interpersonal relations. There is also an enormous cultural encouragement of normative expectations for cross sex activity and popularity (e.g. mass media, books, magazines, etc.). This occurs at a time when the adolescent is struggling to acquire the confidence and social skills to successfully engage in such relationships. Most adolescents seem to work through a protracted period of delay before they develop the social skills and social supports to enter into serious emotional heterosexual attachments. This situation represents a deficit between the emerging potentialities and capacities for emotional attachments and the intense struggle of most adolescents to reach some actualization of these potentials. This would be expected to lead to deficits in levels of emotional attachments.

4. Consciousness of Self: The Awareness of a Separate Individual Self

The emergence of the capacity for formal mental operations, the growth of cognitive and symbolization capacities, and the ability to think abstractly have been linked to the emergence of a new type of self-awareness (Elkind 1968, Rappoport 1972, and others). The teenager is interpreted as being able to think in terms of 'possibilities' rather than in the world of the 'immediate realities' of the child. The world of the possible extends outward in space, time, successes, failures, and so on. There is an increase in the awareness of the finitude of the life span, of past and future, of separateness, and of mortality. The awareness of the self as a separated and finite being brings about the condition where existential loneliness becomes possible. We hypothesize that changes such as the drive for autonomy, the emergence of new cognitive abilities, and the drive for individuation, will all lead to the awareness of the self as 'separate', and hence to existential loneliness (see also May 1953, p. 86).

5. Confusion and Disruption of Self-Concept: the Reorganization of Both Personal and Social Reference Points

The self-concept structuring of the child is rendered almost totally obsolete as he or she grows into adolescence. Rappoport (1972,

p. 288) notes that "...the teenager has to renovate, remodel, and reorganize the whole form, ...his prior self-concept is no longer adequate."

It is not only the internal aspects of self-concept which require reorganization, but also the social position. Both Coleman (1974, p. 96) and Rappoport (p. 289) point to the psycho-social reorganizations required in areas such as: morals; sex roles; achievement; religion; family relations; relations with teachers, peers, other adults; aggression, and so on.

The importance of these changes for the emergence of loneliness is that the loss of both internal-psychological and external/social reference points leaves the adolescent in a state of extreme uncertainty, and confusion. There will be a concomitant increase in needs for: information; reassurance; clarification; guidance, and self-understanding. We have seen from the earlier analysis that such needs may be fulfilled through certain kinds of emotional and social relations. Therefore, the loss of such reference points would inevitably result in new demands from peer relationships. The loss of the self-conceptions of childhood inaugurate a major new task of adolescence, i.e. the search to establish a satisfactory identity.

The establishment of an identity is intimately inter-related with reassurances, feedback, values and the discovery of commitments to other people and causes (see Marcia 1966 and others). Needs for reassurance are further stimulated by the well-known tendency for teenagers to feel inferior and inadequate (Konopka, Rappoport, 1972, Engel, 1959, and others).

6. Emergence of New Talents and Aptitudes: The Struggle for Significance

Related to cognitive, moral, and physiological development in the adolescent will be the emergence of a new profile of interests, aptitudes, and talents. Rollo May (1953) suggests that

> "if any organism fails to fulfill its potentialities, it becomes sick .... If man does not fulfill his potentialities as a person, he becomes to that extent constricted and ill. This is the essence of neurosis - the person's unused potentia-

lities, blocked by hostile conditions in the environment (past and present) and by his own internalized conflicts..." Later (p. 96) he comments on "...the quiet joy when the adolescent can use his newly emerged power for the first time...".

The emergence of a new set of potentialities therefore sets the scene for the struggle of the adolescent to find a significant and appropriate outlet for them. If no such outlet is found the person would be expected to fall into the state of boredom, aimlessness, morbidity, etc., which was earlier identified as Spiritual Loneliness or Meaninglessness.

At least two conceptually separate problems are involved in the struggle for significance. Firstly, the problem finding meaningful values, goals, or purposes (the creation and development of internal commitment bonds), and secondly, a way of becoming involved in roles or activities which may actualize these commitments (the creation of external or social integration bonds).

The issues of finding values/goals and developing commitments to them again converges upon the problem of identity as conceptualized by Erikson (1950), Marcia (1966), Matteson (1975) and others.

7. Emergence of Value Autonomy and Moral Development

The struggle to achieve autonomy of values emerges at adolescence (see Stierlin 1965; Thornburg 1975). War, prejudice, poverty, and other such social issues become important to many youth (see Rappoport 1972, p. 323). Within the framework of identity development the 'moratorium' stage is seen as the location of the search for new values (Marcia 1966, Matteson 1975). Inhelder and Piaget (1958) have also referred to adolescence as a 'metaphysical' age where the search for clarifications and meanings ranges across such topics as the existence of God, social issues, and related ideological-philosophical problems.

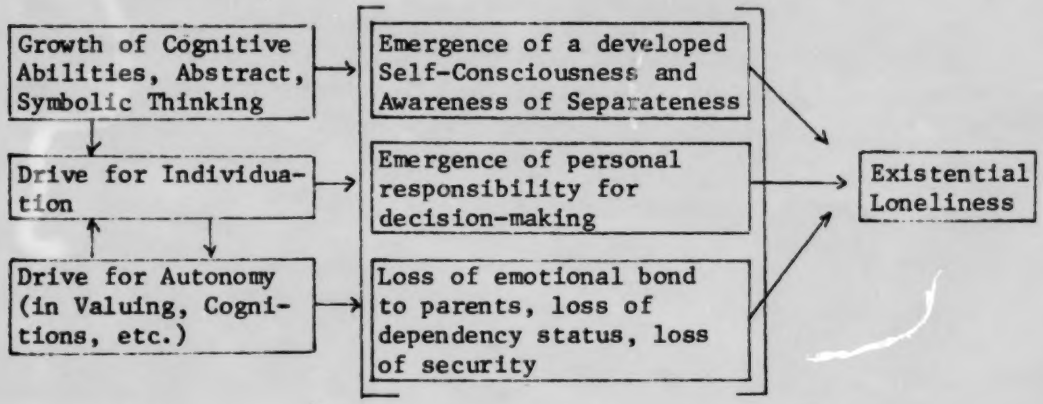
If this search for values and moral autonomy is frustrated, or if the youth is consistently channeled into activities which do not foster or encourage this search, then we believe that Spiritual Loneliness will again be the likely result.

PROPOSED THEORETICAL MODELS FOR LONELINESS AT THE ADOLESCENCE STAGE OF THE LIFE CYCLE

The above factors - which we postulate as leading to the emergence of different forms of loneliness at adolescence - can be organized into a few simple network diagrams. We present three models, for 1) existential loneliness, 2) emotional loneliness, and 3) a combination of spiritual and social loneliness. We stress that these models focus only upon the general developmental changes which we believe would theoretically lead to the emergence of these forms of loneliness at adolescence. The meta-theoretical position of these models, therefore, conforms to the idea of loneliness emerging as a result of change or disruption, in this instance, the developmental changes occurring at the adolescent phase of the life cycle. The models generally omit both social and personal factors which may pre-dispose the person towards chronic loneliness. The social and personal (shyness, aggression, attractiveness, etc.) domains would form a more general context within which the adolescent developmental changes would take place.

We have not attempted to synthesize these three models within the present report. The resulting larger model is extremely complex, and for the sake of clarity we present only the three separate models. These models are as follows:

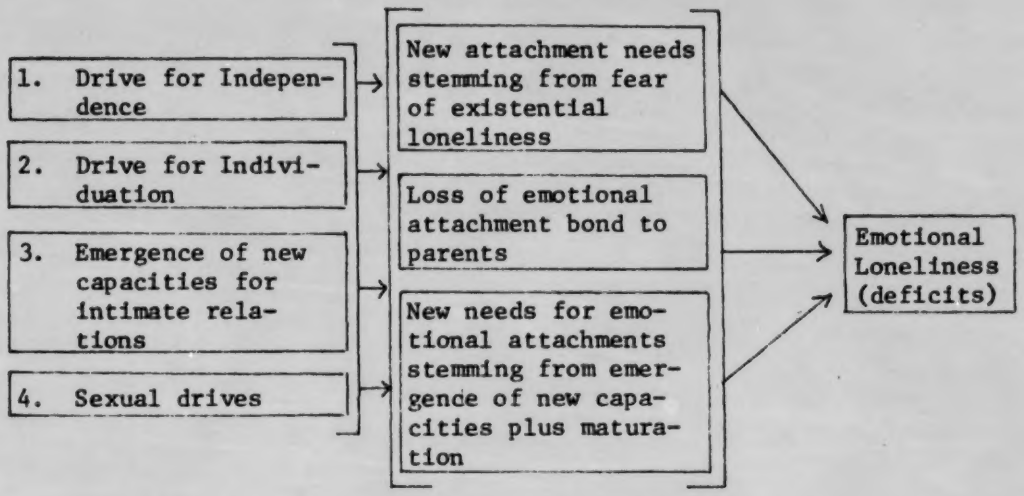
1. Model for the Emergence of Existential Loneliness


Growth of Cognitive Abilities, Abstract, Symbolic Thinking
Drive for Individuation
Drive for Autonomy (in Valuing, Cognitions, etc.)
Emergence of a developed Self-Consciousness and Awareness of Separateness
Emergence of personal responsibility for decision-making
Loss of emotional bond to parents, loss of dependency status, loss of security
Existential Loneliness

Existential loneliness is seen as stemming basically from the rapid growth of consciousness of self, as separate, finite, and alone. This

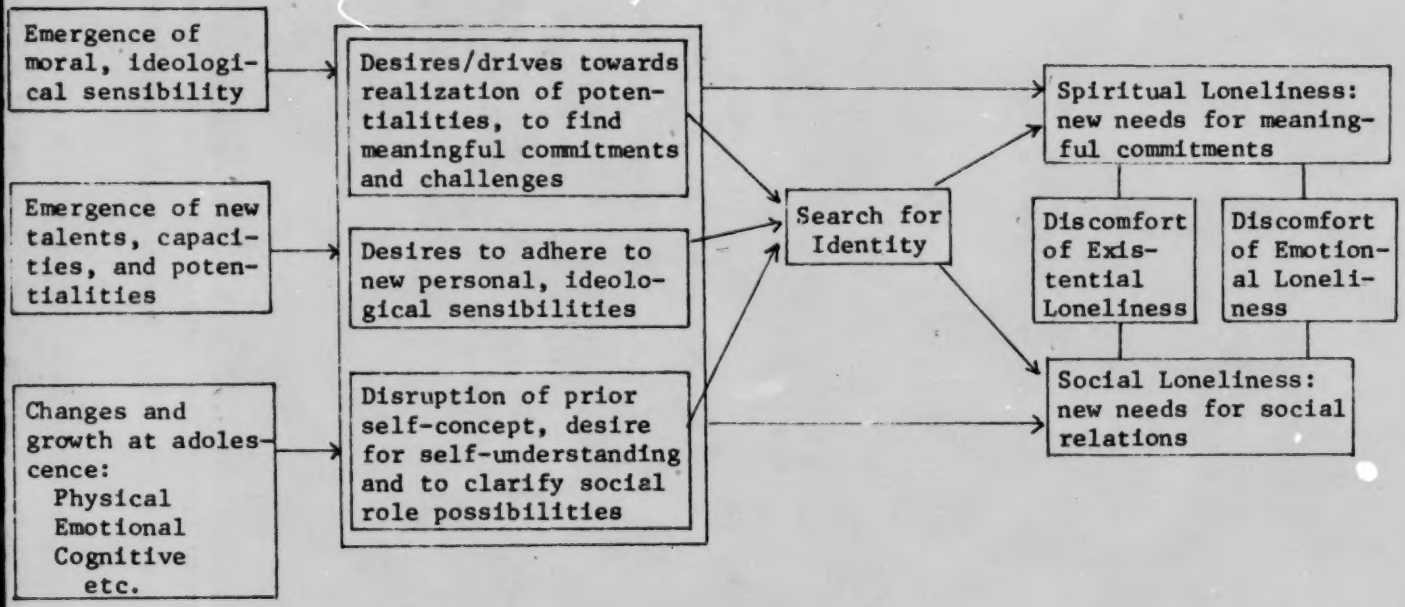
awareness emerges in conjunction with the drives for autonomy of decision-making and for personal responsibility. The loss of the emotional bonding to parents coupled with a loss of security in addition to the awareness of separateness can by hypothesized as leading to existential loneliness. This would generally be responded to with anxiety and a variety of strategies for escape or avoidance, primarily through attachments which might reduce the feelings of separateness, aloneness, and personal responsibilities (e.g. the religious quest of many adolescents).

2. Model for the Emergence of Emotional Loneliness


1. Drive for Independence
2. Drive for Individuation
3. Emergence of new capacities for intimate relations
4. Sexual drives
New attachment needs stemming from fear of existential loneliness
Loss of emotional attachment bond to parents
New needs for emotional attachments stemming from emergence of new capacities plus maturation
Emotional Loneliness (deficits)

The loss of the strong emotional bond to parents coupled with the emergence of two new and powerful needs for intimate (close) emotional attachments are seen as the primary factors leading to a deficit situation in the emotional attachments of the adolescent. Physiological and emotional maturation, coupled with the drive for autonomy from parents are seen as the more distal causes.

3. Model for the Emergence of Spiritual and Social Loneliness at Adolescence


Emergence of moral, ideological sensibility
Emergence of new talents, capacities, and potentialities
Changes and growth at adolescence:
Physical
Emotional
Cognitive
etc.
Desires/drives towards realization of potentialities, to find meaningful commitments and challenges
Desires to adhere to new personal, ideological sensibilities
Disruption of prior self-concept, desire for self-understanding and to clarify social role possibilities
Search for Identity
Spiritual Loneliness: new needs for meaningful commitments
Discomfort of Existential Loneliness
Discomfort of Emotional Loneliness
Social Loneliness: new needs for social relations

Both existential and emotional loneliness are seen as creating strong motives to escape or minimize their discomforts. Meaningful commitments and relations are among the ways in which these two forms of loneliness may be avoided. However, other powerful forces leading into social and spiritual loneliness are the emergence of new needs for meaning (through the growth and maturation of talents and potentialities) and the confusions and clarifications required to re-establish an acceptable self-concept. Both of these developments converge on the need to develop an identity. Therefore, the identity search is pivotal, and if it fails, there will probably be the experience of both forms of loneliness.

ADDITIONAL FACTORS WHICH CONTRIBUTE TO CHRONIC ADOLESCENT LONELINESS

Aside from developmental changes which precipitate the onset of adolescent loneliness there are a large number of additional social and psychological factors which contribute to, or predispose young persons towards more chronic loneliness. We may roughly categorize these into two general classes, personal and social.

Personal pre-dispositions which may cause loneliness

a) Factors which hinder the initiation of relationships: A number of personal factors have been posited which are hypothesized as contributing to loneliness by hindering or blocking the person's attempts to initiate re la tionships. These are:

Shyness	Feelings of inferiority
Self-consciousness	Inability to take risks
Lack of assertiveness/passivity	Anxiety/fear of failure
Feelings of powerlessness	Lack of self-assurance

Each of these factors - and other related factors - would tend to inhibit or block the person from either initiating contacts or participating appropriately (see Zimbardo 1977, Peplau and Perlman 1978, Brennan and McClenaghan 1976).

A second general factor influencing relationships is social desirability. It is likely - judging from the evidence of research on physical

attractiveness - that persons characterized as unattractive, or low in social desirability, would be more likely to be isolated. Varying levels of rejection exist, from apathy to social ostracism. This argument may be extended to the general realm of person perception in the society as a whole. In a loneliness-generating society the socialized 'meanings' of persons may be such that there will be a generalized apathy, disinterest, fear, or dislike of other persons in contrast to an interested, caring, including, and nurturing stance towards persons. The analysis of the stances towards, and the attractiveness of, the 'generalized other' would be a critical component of our understanding of the social factors which lead to inter-personal rejection, apathy, or disinterest.

The levels of crowdedness, competitive individualism; the values of independence, autonomy, one-upmanship; conditions of social class hierarchies, and so forth; generalized cynicism and mistrust; apathy regarding causes and values which are not of immediate local concern, and so on, might ALL be marshalled as evidence of unconcern, apathy, or dislike for the 'generalized other'.

b) Factors which disrupt the development of relationships

Poor social skills - An inability to become 'included' in the social life of others, or the inability to 'include' others in one's own life space has been found to be a characteristic of highly lonely persons. There may be deficits in strategies to accomplish both of these objectives. Yet Peplau and Perlman (1978) indicate that there are inconsistent findings regarding social skills and loneliness. This suggests the possibility of complex interactions with other mediating factors.

Fear of intimacy - A number of writers have developed the connection between inadequacy of early parenting and fear of intimacy (see Suttie 1952, Menninger 1930, and Sullivan 1953). The major mediating variable is development of ego-defensive mechanisms (Fromm, 1956 Reichman 1959). Protective stances in relationships

are seen as leading to difficulties of self-disclosure, etc., etc.

Dislike or ambivalence towards others - Some research has suggested that lonely students may be characterized by lower levels of liking for others than non-lonely persons (Loucks, 1975, McClenaghan 1976).

Relative disinterest in social approval - Loucks (1974) suggests that non-lonely students are significantly more motivated by a need for social approval than are highly lonely persons.

Evoking dislike/disinterest/boredom in others - Studies of how lonely persons are perceived by others have suggested that the negative self-view is consistent with the way they are perceived by others, i.e. as being self-pitying, boring, difficult to talk to, uncommunicative, unfriendly, introverted, pre-occupied with self (see Loucks 1974, Weiss 1974, and others).

Inability to make appropriate or lasting commitments - Evidence has been presented that the strength of commitments is directly related to the quality of decision-making which usually precedes the commitment (Janis and Mann 1977). Thus all of the factors which erode the quality of decision-making are likely to result in sub-optimal post-decision commitments, post-decision regret, etc. Weak, changeable, unstable commitments and unsatisfying bonding are the likely result. Oscillations between two sub-optimal choice options, or oscillation between identity statuses (such as that between Foreclosure and Moratorium - see Marcia 1966) would also be a likely result of the inability to reach decisions. Such identity statuses are clearly characterized by relational deficits.

Inadequate development of autonomy - The adolescent struggle to achieve autonomy in the areas of thinking, emotion, moral

evaluation, decision-making, and so forth, can also be directly related to loneliness. If autonomy in any of the above areas is impaired (see Stierlin 1974, Thornburg 1975) then there may be dramatic undermining of the person's decision-making ability and hence the quality of their commitments. Further factors hypothesized as emanating from an absence of autonomy would be feelings of powerlessness, over-dependency, anxiety, low self-esteem, and so on. Stierlin (1974) presents an excellent analysis of the intra-family relations between parent and child, which prevent or undermine the development of the autonomy and independency of the adolescent.

Tendencies towards low self-esteem, powerlessness, and over-dependency - Middlebrook (1974) indicates that low or precarious self-esteem may result in the person withdrawing for self-protection. Others have demonstrated the empirical relationships between self-esteem and loneliness (Loucks 1974, Moore and Sermat 1974, Brennan and McClenaghan 1976, and others). Peplau and Perlman (1978) indicate that the linkage may be reciprocal and dynamic. Chronic powerlessness and dependency have been related to feelings of abandonment, anxiety, separation, etc., all of which would tend to damage relationships to others (Greenwald 1977, and others). Related differences between lonely and non-lonely persons as found in Loucks (1974) study were: tendency to be self-critical, uncertainty of self view; Konopka (1966) additionally points out that adolescence is a time when self-esteem and self-view are highly precarious and the need for self-acceptance and feelings of self-worth are high.

Chronic inability to achieve I-thou relationships - A plethora of arguments and processes are presented in the literature to explain the deterioration of I-thou into I-it relationships, or the inability to successfully develop such relationships (see, for example, Gaev 1976, Loucks 1974, and others). Notable amongst these arguments is the connection between chronic powerlessness, overdependency, and the resulting anxiety and fear of abandonment. Such traits are hypothesized as leading to clinging dependent approaches which deny autonomy to the other, etc., etc. Greenwald (1972) develops the argument that powerlessness and the fear or inability to assume responsibility, lead to continued manipulation of others (i.e. maneuvering others into positions where they assume responsibility). This stance is seen as over-dependent and manipulative, and responsible for the I-it type of relationship.

Social factors which contribute to loneliness amongst adolescents

A large variety of social and cultural factors may be hypothesized as potential causes of various kinds of adolescent loneliness. It is difficult to separate these, both from each other and from the various psychological/personal factors which are also a part of the loneliness equation. It would require an enormous effort to fully elaborate ALL of the factors in the sociological analysis of aspects of social isolation, meaninglessness, and loneliness (see, for example, Slater 1970, Tournier 1974, Reismann et al. 1971, Glasser 1975, Frankl 1959, Fabry 1968, Klapp 1959, Seeman 1975 , and others). In the present section we will briefly examine a few of the important issues.

Inadequate and Marginal Social Roles for Adolescents

Rappoport (1972) writes, "...the adolescent's social position is fairly clear, as compared with older and younger people, he hasn't got one." Rappoport describes the social role of adolescents as a sort of social 'limbo' in which the adolescent enjoys neither the rights and

privileges of the child or of the adult. Lewin (1939) earlier describes the adolescent social role as 'marginal'.

Rappoport (1972) argues that the prevailing stance towards teenagers is that of mistrust and suspicion. He sees this as leading to excessive supervision, invasions of privacy, overprotection, and extreme restrictiveness. A further problem is that many parents may see the adolescent as a competitor, for example see Stierlin 1974. Adolescents are aware of this paranoid stance by adult society. Gaier (1969) for instance indicates, "...the adolescent sees himself as being unloved, rejected, and misunderstood - one whose privacy is invaded at home, whose sense of dignity is violated at school, ...at least if one can believe the writings of Friedenberg, Paul Goodman, and David Reisman."

Konopka further elaborates - she mentions that there is an "overwhelming feeling of not being understood...". Fleege (as quoted by Collier and Lawrence) also identifies this problem, "Few problems which the adolescent has to face have a more disintegrating, disheartening and sorrowful effect upon his personality than that of his feeling of being misunderstood by those nearest and dearest to him." Collier and Lawrence suggest that about one boy in four indicated that the father did not understand him and one in five that the mother did not understand him. They see this as an important component of the psychological isolation of adolescents.

Excessive Provision of Rejection and Failure Roles to Adolescents

The ethic of competitive individualism and 'winning' implies that there may be a large number of potential failure or rejection roles within the society. A common reason given for the problematic nature of adolescence is that an inordinate number of adolescents fall into rejection and failure roles (see Konopka 1966, Stierlin 1974).

Competitive grades increase the problems of low self-esteem, failure and non-acceptance in the school. School often gives little satisfaction or feelings of achievement. Konopka writes that the early and continued absence of achievement experiences in the school makes many youth feel 'totally inadequate' and tends to increase their essential isolation.

There is a large literature on the feeling of isolation and rejection from school 'success' roles. (See Elliott and Voss 1974, and others)

Racial, sexual, and age discrimination can similarly place the adolescents into many failure or rejected social roles.

Collier and Lawrence (1951) point out that in many cases adolescents cannot compete successfully for desirable social roles. These authors argue that a feeling of psychological isolation stems from being unable to compete successfully.

Frustration of the Struggle for Independence: Adult Ambivalence and Confusion

At least two possibilities exist to relate loneliness and the struggle for independence. Firstly, if the adolescent is pushed too rapidly into independence he or she may feel insecure, isolated and alone. The youth in this case may not be ready for such rapid or total independence. Konopka (1966) provides examples of adolescent girls who have suffered from such a loss of security. Konopka argues that the loneliness felt by these girls was based on a feeling of being unprotected and of being surrounded by an anonymous, powerful adult world.

Secondly, the youth's struggle for independence may be thwarted or undermined by the parents. Wood and Hannell (1977) stress that those youth who remain overly dependent on their parents may be susceptible to loneliness.

The overly dependent person may not have developed the capabilities of making decisions or making commitments. We would agree with Janis and Mann (1977) that inadequate decision-making almost inevitably leads to inadequate or weak commitments. Thus the whole bonding process may be weakened, thereby leading to deficits in relationships and meanings. Bauer (1963) examines the problem of adult ambivalence and confusion regarding adolescent independence. He argues that the behavior of parents and other adults may result in competition, anger, frustrations, and misunderstandings on both sides. He suggests that parents have a particular ambivalence regarding the dependency status of their adolescent children. He believes that in the younger age brackets there is a frustration of

the dependency needs of youth, and that this process suddenly reverses itself, so that in adolescence the parents frustrate the struggle for independence. He writes, "It seems that the weight of adult pressure during adolescence is in the direction of retarding growth ... we frustrate the striving for independence."

The Prolonged Dependency Status of Many Adolescents

A number of writers have alluded to the prolonged dependency status of many adolescents, the primary argument being that educational requirements keep the adolescent and young adult in a state of financial and economic dependency for a very long period. A possible result is that the prolonging of adolescent dependency leads to a situation where many youth become attuned to this dependency and lose the desire to assume responsible adult status in the adult world. Bauer, for example, sees many adolescents and youth as being overprotected and over-indulged, during most of their life. Their desire to strive for freedom, autonomy, and independence perhaps atrophies.

Additional arguments for this position are that the whole society, in various ways, is dedicated to the cultivation of dependency needs, not only of youth and adolescents, but of adults. An extended literature exists on this theme (see Slater 1970, May 1953).

Excessive Expectations and Unrealistic Social Norms for Teenagers

Many commentators have argued that prevailing social norms may be inappropriately high, e.g. that the teenager should always have dates after school, or be popular, have many friends, experience success, be beautiful, glamorous, pretty, or an athletic star, etc. The mass media in particular and often parents themselves may promote such values for their children. As the person moves from childhood into adolescence he or she has to deal with such cultural expectations. To the extent that the adolescent's social relationships do not keep pace with age-related expectations then he or she may feel left out or lonely or inadequate. Klapp (1969) refers to the explosion of expectations in contemporary society. Within this context the process of social comparison to

other adolescents may exacerbate feelings of failure and loneliness. Disjunctions between culturally induced expectations and actual levels of achievement may lead to feelings of loneliness. Teenagers additionally appear to be particularly vulnerable to negative social comparisons between themselves and their 'more attractive, more successful' peers. The mass media, especially TV, fashion magazines, and other adolescent publications appear to be ruthlessly devoted to making the young person feel discontent with himself by raising the levels of expectations, desires, and norms for success and popularity. The 'discontented' youth is invited to imitate the styles of various celebrities. This interacts with a further struggle of teenagers, i.e. the problem of identity development. Thus, the often tentative, and usually uncertain approach towards an identity is sidetracked, or distorted, by the strong fantasy elements of the mass media advertising which offer popularity, acceptance, winning, etc., through consumerism, fads, and fashions. It is known that this pathway to belongingness and identity is treacherous (see Klapp 1967).

The Loss of Challenging and Meaningful Tasks: Meaningless Roles and Stagnation

A further problem in contemporary society is the absence of meaningful challenge. This is usually seen as a stressful situation. Significant challenges are seen as facilitating maturation, while the absence of challenge leads to stagnation, boredom, and apathy. Many commentators argue that the process of maturation and the growth into autonomy requires a degree of challenge. Whereas the healthy adolescent may be able to advance in spite of this relative absence of challenge, perhaps by vigorously discovering some meaningful challenges, the marginal adolescent may succumb, lapsing into chronic apathy, loneliness, neuroses, or other escape behaviors such as drugs.

A related theme (see Konopka 1967 and others) is the thwarted need for adventure. Konopka points to the restrictions on girls as being repressive and more limiting than for boys. At the same time she regards adolescence as a time at which there is a strong need for some kind of

adventure. She points to the old custom of the 'wanderjahre', in which the male youth was allowed to roam freely before settling down to a job. Konopka argues that the way of finding excitement for adolescent girls is often limited to quarelling and lovemaking. She indicates that this relates to problems of boredom, restlessness, etc. This is also exacerbated by the media influence where the youth see adventuresome worlds on TV, magazines, etc.

Meaninglessness and Value Confusion in the Adolescent Culture

Schwartz (1977) presents an examination of the values, goals, and meanings in the adolescent culture and life situation. For instance, she examines TV, radio, movies, and the schools. She indicates that there is little in such institutions which would help the young person acquire a moral, ethical, or value system to guide them through life.

Many of the cults within the youth subculture, e.g. Harekrishnas, Tibetan Buddhism, Jesus Freaks, and most of the counter-culture human potential growth movements, present a sustained attack upon the values of 'progress, success, materialism, security, hard work, family life, rationalism, etc.'. The main problem here is clearly the erosion and undermining of 'bonding referents'. If the mystiques, values, and meanings of most of the conventional bonding referents are being eroded or ridiculed then the young person will find nothing in his/her social world which is exciting, worthwhile, or meaningful. Klapp (1967) sees the attack upon conventional social values as being "...treasonable at the deepest levels". He relates this general loss of meanings and values directly to the young person's struggles with loneliness and identity.

COGNITIVE PROCESSES AS MODULATORS OF LONELINESS

Peplau and Perlman (1977) have proposed that certain cognitive processes, specifically 1) causal attribution, 2) social comparisons, and 3) perceived control, may play a critical role mediating between the experience, its interpretation by the person, and the eventual response which is made by the person.

Cognitive attributions regarding loneliness

Using attributional theories of success or failure (following Weiner 1974) these authors suggest that causal explanations for loneliness may be classified according to: locus of causality and stability. The former focuses on causality as internal versus external with respect to the actor, while the latter classifies causes as stable or temporary. Weiner's (1974) four primary reasons for success/failure are also mentioned within the context of this attribution process (my ability, my effort, luck, the difficulty of the task). These factors may lead to the following simple taxonomic scheme for the person's analysis of the nature of his or her loneliness:

Figure 2.1

CLASSIFICATION OF THE CAUSES OF LONELINESS
ACCORDING TO LOCUS OF CAUSALITY AND STABILITY

		Cause perceived as: Stable	Unstable
1. Internal Attribution	a) My ability (traits, skills, characteristics)		Unlikely
	b) My effort	Unlikely	
2. External Attribution	c) Difficulty of the task		Unlikely
	d) Luck	Unlikely	

* The cells designated as 'unlikely' are those which do not seem compatible with the four sub-causes a, b, c, and d, i.e. that they are not likely to generally be adopted.

Peplau and Perlman explore some of the features which are associated with the tendency to assume internal attributions as opposed to external attribution. They suggest that prolonged (chronic) loneliness would tend

to lead to internal attributions. Similarly, low self-esteem would tend to favor internal (personal) causes. It would appear from Peplau and Perlman's work that the analysis of cognitive attributions in regard to loneliness is at a relatively early stage. However, the evidence so far presented by these writers seems highly encouraging and generally supports their theoretical analysis.

The importance of causal attributions regarding loneliness. The critical importance of the mediating cognitive processes is that they may relate strongly to the person's reactions, i.e. emotions, expectations and behavior. Different attributions may directly relate to a reaction of optimism, pessimism or despair, or a stance of action or inaction. For example, if the cause of loneliness is perceived as stable and internal there may be a tendency to respond with shame, hopelessness or depression. External temporary attributions (e.g. relocation, luck, etc.) may not have the same negative effect. As Peplau and Perlman point out, these responses may have very powerful influences upon the coping patterns which people adopt in dealing with loneliness.

Social Comparison. A number of writers allude to the effect of social comparison upon one's responses to loneliness. The basic result - as Peplau and Perlman indicate - is to heighten or diminish the person's reaction to loneliness. The adolescent may compare his levels of loneliness to that of his/her friends. Such comparisons may be realistic/unrealistic or positive/negative. Discontent may be intensified if the teenager believes that he/she is doing much poorer than others (see Klapp 1967, Peplau and Perlman 1977).

Perceived Control. This refers to the amount of control which the lonely person believes he or she has to re-make or alter social relationships to achieve more desirable levels. A higher level of felt control appears to reduce stress (see Hill, Rubin and Peplau 1976, Peplau and Perlman 1977).

COPING STRATEGIES FOR LONELINESS

An enormous literature deals with the multitudinous ways in which people cope with loneliness. We cannot review all this literature within the present document. There may be different strategies for the different

forms of loneliness. A general dichotomy is whether the coping strategy is functional or disfunctional, i.e. whether it really does nothing to alleviate the problems which lead to loneliness and ultimately leads to a deeper level of despair (e.g. drinking, drugs, etc.), or whether it succeeds in moving the person towards a less lonely existence. The writings of May (1953), Gaev (1976), Loucks (1974), Klapp (1959), Weiss (1973), Peplau and Perlman (1977), Frankl (1959), and others, explore the variety of issues surrounding coping strategies. Peplau and Perlman (1977) offer the following classification of coping strategies:

Table 2.2

A CLASSIFICATION OF COPING STRATEGIES FOR DEALING WITH LONELINESS

1. Increase one's achieved levels of social contact

   This includes:
   a) Increasing one's social disirability (more attractive, more mature, more skilled, wealthier, etc., etc.
   b) Making more/new friends
   c) Making better use of existing networks
   d) Surrogate relationships (pets, hero worship, etc.)

2. Reduce one's 'desired' levels of social relations

   This includes:
   a) Reduction of personal standards for amount of of interaction and type of relationships
   b) Adaptation to the achieved levels of social relations
   c) Emphasis on hobbies, pastimes, etc., which can be enjoyed alone

3. Reduce (or minimize) the importance of loneliness

   This includes:
   a) Denial/suppression of any recognition that one is lonely
   b) Rationalizations to minimize the importance of social relationships (e.g. other pursuits are more important, loneliness is a positive experience, etc.)

c) Alternative gratifications: strategies to achieve the gratifications (or provisions or pay-offs) of social relationships by non-social means

d) Alleviations: non-social escape attempts, e.g. drugs, alcohol, kicks, fun, etc.

This above system represents but one of the many analyses of coping responses. Whole texts, and even complete psychotherapies, have been based on some of these specific coping strategies. For instance, marital therapy, social skills training, and relationship enhancement courses focus upon the first of the above strategies. Rational emotive therapy, in contrast, would certainly concentrate on the elimination of 'unrealistically high' desires for social contact, while Buddhism (for example) might generally emphasize a philosophy of 'letting go' and 'detachment' from one's desires. Both of these in their own different ways, would be dealing with the second Noble Truth of Buddhism ('suffering' stems from desire). Total entertainment industries (see Gordon 1976) are based on coping strategy number 1. Zimbardo's (1977) book on 'shyness' deals with a particular inhibitor of social interaction.

Therefore, we point to the complexity and range of issues which enter into coping with loneliness, and do not attempt to deal with this subject in the present report.

LONELINESS AS A WEAKNESS OF INTERNAL AND EXTERNAL BONDING

We suggest that three main entities may be involved in discussions of loneliness. These are 1) the person, 2) the type of connections, attachments, or bonds to another, and 3) the bonding referent (either persons, social collectivities, groups, disciplines, such as music, art, etc.). Bonds or attachments may be deeply influenced by changes - either in the person, the situation, or in the bonding referent. Furthermore, weak bonds may be the result of two very different causal processes. Firstly, they may never have developed in the first instance. Social or psychological conditions may converge to bring about a situation whereby the person's ability to develop commitments remains atrophied or blocked. Secondly, although good bonding may have been developed,

it may be undermined or eroded by a variety of processes. Usually this second form of explanation forces attention upon changes or deteriorations in either the person or the bonding referent. The first of these processes is usually encompassed by Control theory, while the second is the focus of Strain theories of social bonding (see Nettler 1974, Elliott and Voss 1974).

A variety of theoretical statements regarding the erosion of social bonding have been offered, e.g. Elliott et al. (1977), Kellman (1969), Kanter (1972), Hirschi (1969), Brennan et al. (1977) and others. In each case these theoretical statements elucidate upon:

a) Forms of internal bonding: emotional attachments, sentiments, normative integration, ideological commitments, superego bonding, and so on

b) Forms of external bonding: instrumental integration, role occupation, the influence of sanctioning networks, time involvement in social roles, and so on.

Deficits in these varieties of bonding may be related to different forms of the experience of loneliness. It would appear, at first glance, that deficits in 'internal bonding' may be more strongly related to a sense of 'emotional detachment'. Deficits in 'external bonding' appear to be associated with social detachment, i.e. social loneliness. It is critical to acknowledge that at the present time there is NO clear descriptive taxonomy of the relations between <u>bonding deficits</u> and the various formulations of loneliness.

A second general situation, however, is that in which a <u>specifiable</u> entity or collectivity does <u>not</u> exist. The person is confronted with a social or emotional void and there is an ill-defined struggle to FIND SOMETHING to which he/she may develop such bonds. This situation may be inaugurated by 1) the loss of a pre-existing bonding referent, 2) the emergence of a need for a new type of bonding referent (as in growth in adolescence) or 3) the transformation and (usually) deterioration of a bonding referent in such a manner that it can no longer serve meaningfully.

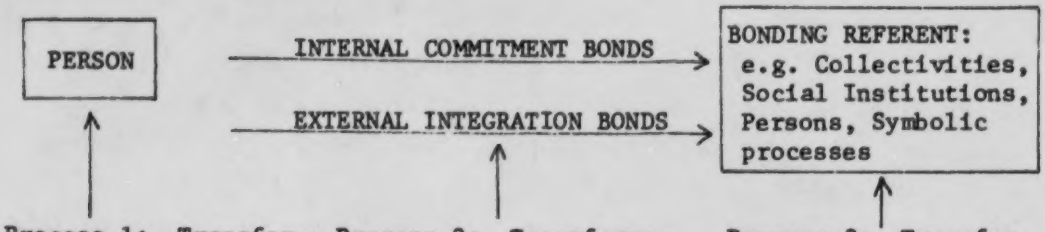
The erosion and deterioration of social entitites which embody major social values; or, the undermining of particular social values through rapidly changing social conditions, could both result in a situation where persons are 'in search of' a meaningful referent (see the work of Klapp 1962, Goodman 1956, Toffler 1970, and others). Klapp's (1969) work on the deterioration of American heroes, and on the problem of meaninglessness in the wake of modernization gives a particularly graphic description of the problem of the destruction of 'meaningful social referents'.

The above discussion of loneliness in relation to theories of bonding indicates to us three general processes through which a person may be detached or isolated from persons, collectivities, or social entities:

1. Transformation, growth or deterioration in the person. The emergence of new personal needs, or the deterioration of the person's ability to be bonded or to have deep commitments. Changes as a result of growth/development of the person appear to be particularly important for the explanation of adolescent loneliness (see also Peplau and Perlman 1978).
2. Erosion or poor development of the various modes of bonding to an existing social entity.
3. Destruction, deterioration or transformation of the actual social entity, or bonding referent.

Figure 2.3

MODES OF SEPARATION BETWEEN A PERSON AND HIS/HER BONDING REFERENTS



Process 1: Transformation, deterioration, inadequate development, or change in the person

(The problem of the person)

Process 2: Transformation, change, blocks, or ill-development of either
a) Internal, commitment bonds, or
b) External, integration bonds

(The problem of the person - referent interaction)

Process 3: Transformation, ill-development, or deterioration of the bonding referent.

(The problem of the value of the social referent)

SUMMARY: AND A PROSPECTUS FOR RESEARCH

The argument for the universality of the experience of loneliness is primarily theoretical and only partially based on empirical evidence. Theoretical writings covering philosophy, religion, neo-freudian psychoanalysis, and also including fiction, point to the universality of this experience. Unfortunately, the development of theory has eclipsed the confirmation of theory. Major factors which have hindered empirical research on loneliness include:

- Problems in the conceptualization of loneliness
- Inadequacy or unavailability of operational psychometric measurement of loneliness
- Disinterest (or fear) on the part of research psychologists to study loneliness
- Absence of a valid epidemiology of loneliness
- Absence of adequate theories of loneliness

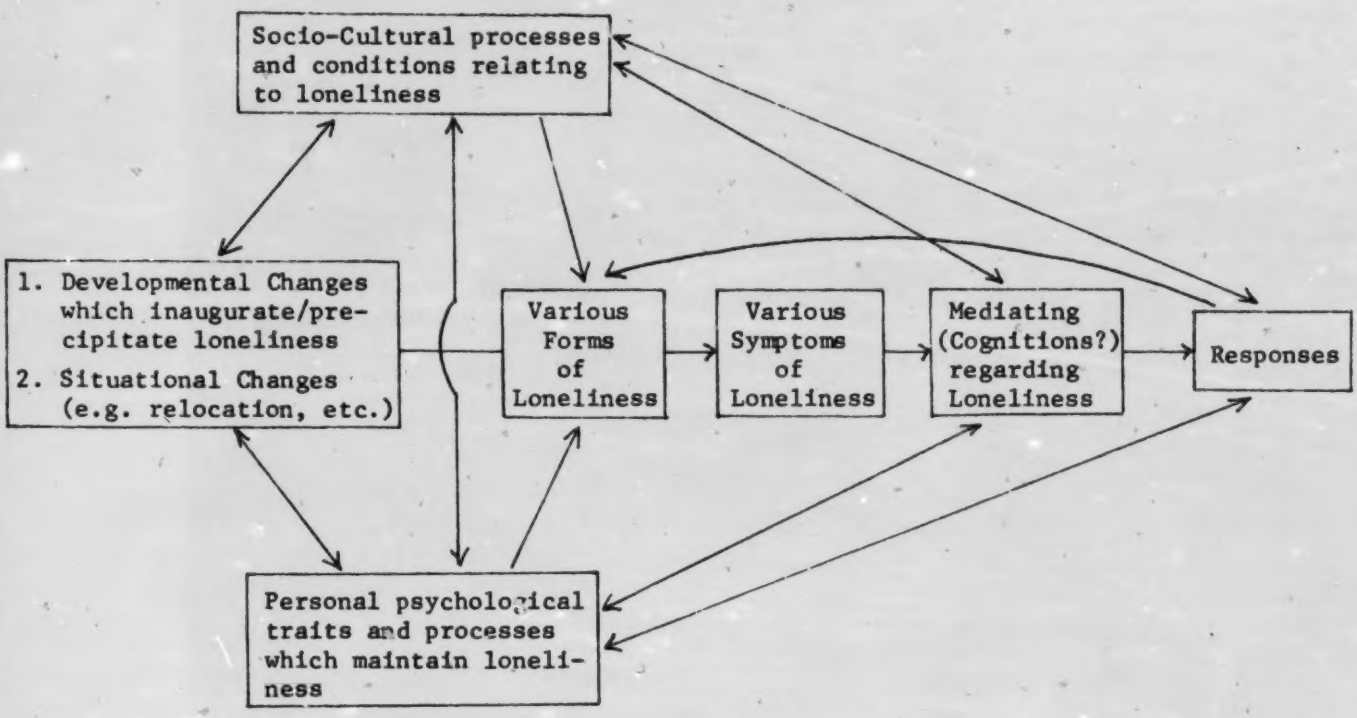
- A resulting dearth of good empirical studies of loneliness (i.e. where appropriate psychometric measures, unbiased sampling, and so forth, were used)

These, and other problems, have characterized the study of loneliness. They also point towards the methodological and theoretical challenges which may lead to advances in the study of loneliness.

The above literature review on forms and causes of loneliness may be summarized in the following diagram:

Figure 2.4

A GENERALIZED MODEL OF THE MAIN INTERACTING DOMAINS OF VARIABLES IN THE STUDY OF LONELINESS


Socio-Cultural processes and conditions relating to loneliness
1. Developmental Changes which inaugurate/precipitate loneliness
2. Situational Changes (e.g. relocation, etc.)
Various Forms of Loneliness
Various Symptoms of Loneliness
Mediating (Cognitions?) regarding Loneliness
Responses
Personal psychological traits and processes which maintain loneliness

Each of the various domains of variables in this model interact with the others in complex ways to exaggerate or mitigate the problems of loneliness for a particular person in a particular life situation. We argue here strongly for the principle of differential causation of loneliness. We would argue that not only are there different forms of loneliness, but also that there are a multiplicity of pathways into loneliness. The problems of the aggregative fallacy in this area of research are exceptionally severe. Different persons may enter into loneliness for different reasons, and the same person may experience different forms of loneliness, on different occasions, for varying reasons. The descriptive taxonomic task is only in the earliest stages in regard to the phenomenon of loneliness. The phenomenon, in itself, is so complex and multi-faceted that the problem of reductionism looms large. Caution is mandatory in the face of this complexity.

The present study is clearly exploratory. We have constructed scales to measure various forms of loneliness on the basis of item-analysis of pre-existing data. The scales themselves have been checked for various standards of psychometric acceptability, and appear to be satisfactory. The content validity of the scales is limited by the pre-existing nature of the data sets we have used. Nevertheless, we have tried, as far as possible to approximate the conceptualizations of the more recent empirical research in the field - notably Weiss (1973), Peplau and Perlman (1977), and some others. We believe that the criterion variables we have used - at least conceptually - are in the general domains of social isolation, emotional isolation, and meaninglessness. Fortunately, we also were able to utilize self-reported loneliness as a generalized indicator of loneliness.

We stress that we do not offer the present set of loneliness scales as new instruments with which to operationally assess forms of loneliness. Scale development in this content area is sorely needed. We hope that the exploratory work of the present project will make some contributions to the on-going development of better measurement of loneliness.

The range of explanatory and predictor variables in the present research project is rather large. Variables covering different facets of socio-cultural conditions and personal-psychological traits are correlated with the various forms of measured loneliness. Four large scale studies of youth development - covering the social contexts of family, peers, and school - have provided a rich source for exploratory research.

CHAPTER 3

CRITERION VARIABLES AND LONELINESS INDICATORS

In this chapter we develop various approaches to the operational measurement of various forms of loneliness. We have been guided largely by the conceptualizations presented earlier by Weiss (1974), Gaev (1976), Peplau and Perlman (1977), and others, regarding the dimensions of emotional and social isolation. The initial sections of this chapter deal with psychometric scaling exercises designed to operationalize these two concepts. Additionally, we have attempted to utilize certain other common concepts of loneliness where they are available in our data sets. Two such additional aspects of loneliness which we have also attempted to measure are meaninglessness (following Buhler, 1969, etc.) and the idea of loneliness as a disjunction between social desires and social realities (see Peplau and Perlman, 1977).

The following forms of loneliness were operationalized:

1. Self-reported loneliness (OYD only)
2. Loneliness as a disjunction between desires for social relations and achieved social relations (Indiana and Colorado)
3. Loneliness of social isolation (all four data sets)
4. Loneliness of emotional isolation (all data sets)
5. Loneliness of meaninglessness, aimlessness, and identity confusion

We now describe the measurement of these five variables. The reader should keep in mind that the present project is exploratory and that we are reliant upon secondary analysis of pre-existing data. Therefore, in some cases we obviously do not have ideal items with which to assess these theoretical variables. In some instances our measurement approaches have both high face validity and good psychometric properties. In other cases we acknowledge that our success in assessing these variables is not ideal.

1. SELF-REPORTED LONELINESS

The OYD data set contains an assessment of self-reported loneliness. This subjective measure on the part of the youth themselves provides a relatively global understanding of the concept of loneliness. The question was worded as follows:

	Strongly Disagree	Disagree	Agree	Strongly Agree
I often feel lonely	1	2	3	4

This variable is broader than the more explicit definitions of aspects of loneliness such as objective measures of sociometric isolation, emotional isolation, and so on. In the later parts of this chapter, we will examine the inter-correlations between these different measures of loneliness.

2. LONELINESS AS A DISJUNCTION BETWEEN SOCIAL ASPIRATIONS (VALUES) AND EXPECTATIONS

A number of writers, e.g. Peplau and Perlman (1977), Wood and Hannell (1978), have suggested that there is advantage in both the conceptual analysis and operational measurement of loneliness, by regarding it as a deficit state between desired levels of social contact and actual levels. There are obviously differences between optimal levels of contact for different people. Such variations in optimal levels would, by themselves, preclude the setting of specific or absolute thresholds for levels of social or emotional contacts. Therefore, the idea of assessing the gap or disjunction between desires and actual levels of social interaction has some merit. We, therefore, have utilized this approach to the measurement of loneliness in our present research.

This particular approach to the measurement of loneliness was possible in two of our data sets: Indiana and Colorado. We now describe the two approaches.

a) Indiana Sample

This data set contained a measure of the adolescent's value or desire for social interaction and affection. The items (described elsewhere in this chapter) focus upon the wish for contact, the desire to be liked, to be affirmed, and to be popular. This variable is exactly replicated by another response format which assesses the adolescent's expectation that such love and affirmations will actually happen. The ratio of values over expectations (V/E) gives a disjunction score such that a score greater than unity will indicate that desires exceed expectations. Thus, high values of this disjunction will theoretically indicate states of deficit (i.e. loneliness).

b) Colorado Sample

The disjunction score in the Colorado sample is similar to that used above in the sense that it examines the difference between an aspiration for involvement and an actual level of involvement. However, whereas the Indiana disjunction score focuses on general loneliness, the Colorado measure focuses more specifically upon social and peer relationships within the context of school. Thus it is a somewhat narrower examination of the youth's social relationships. A second difference is methodological. This is that whereas the Indiana Sample is a ratio between involvement and aspiration for involvement, the Colorado measure uses a difference score between aspiration and actual involvement. Again, however, a high score indicates a state of deficit. Anything above '0' will indicate that aspirations are higher than actual levels of social involvement in this school. The items can be examined in Elliott and Voss (1974), Brennan et al. (1978).

3. SOCIAL ISOLATION

Scales were constructed in all four data sets to bring together items reflecting an absence of or deficits in social involvement. Items reflecting social relationships to teachers, parents and peers were included in an item analysis. Conventional psychometric scaling procedures were adopted. Cronbach's Alpha coefficient was examined

Table 3.1 MEASURES OF SOCIAL ISOLATION USED IN THE PRESENT STUDY

Identification Label	Name of Variable	Scoring Direction
A. Office of Youth Development Data		
B42	Neighborhood social isolation (in S13)	4=serious, 1=not serious
B46	Nothing to do (Boredom)	4=serious, 1=not serious
C7	Friends don't like me (in S13)	1=disagree, 4=agree
C8	I feel awkward and shy (in S13)	1=disagree, 4=agree
S13	Scale of social isolation	hi=hi isolation
B. Colorado Data		
VAR7	School social involvement	10=hi, 2=lo
VAR15	School involvement-aspiration disjunction	hi=lonely
VAR23	Time spent with friends	5=hi, 1=lo
VAR24	Desire to be like friends	5=hi, 1=lo
VAR47	Time spent with parents	5=hi, 1=lo
C. Indiana Data		
CLUBS	Number of clubs	Actual number
PENV14	Do you feel that teachers treat you as a person (in S8)	1=lo, 5=hi
PENV16	Do you feel that your friends are interested in you (in S9)	1=lo, 5=hi
PENV22	Do you feel that friends regulate your behavior	1=lo, 5=hi
FM8	Do you feel that others won't like you	1=disagree, 5=agree
FM9	Do you feel that others won't help you	1=disagree, 4=agree
AL8	I don't feel left out (in S20)	1=disagree, 4=agree
AL10	I feel that people accept me for myself	1=disagree, 4=agree
S20	Scale of low social isolation (social integration)	hi=lo isolation
S24	Scale of low expectation of being liked	hi=lo expectation
D. San Diego Data		
NVAR35	Neighborhood social involvement (in INTER)	4=hi, 1=lo
VAR7	Social involvement at school: are you on inside of circle (in S16)	1=outside, 6=center
VAR29	Dating frequency	1=never, 5=2 or more times a week
VAR183	Number of evenings spent with friends (in INTER)	0=0, 1=1, 0 through 7
INTER	Scale of social participation	hi=high participation
S16	Scale of school social involvement	hi=high involvement

Table 3.2 MEASURES OF EMOTIONAL ISOLATION AND MEANINGLESSNESS USED IN THE PRESENT STUDY

Identification Label	Name of Variable	Scoring Direction
A. Office of Youth Development Data		
B12	Teachers don't understand	4=serious, 1=not serious
B30	No adult to talk to (in S14)	4=serious, 1=not serious
B32	Parents have no time for me	4=serious, 1=not serious
B36	Parents lack interest in me	4=serious, 1=not serious
B40	Parents don't understand me (in S14)	4=serious, 1=not serious
C2	There is no one I can trust (in S14)	1=disagree, 4=agree
C10	No one cares (in S14)	1=disagree, 4=agree
E3	Parents don't care	1=never, 4=always
S14	Scale of emotional isolation	hi=hi isolation
S15	Scale of Meaninglessness (future job, education)	hi=meaninglessness
S19	Social values confusion	hi=hi confusion
B. Colorado Data		
VAR22	Number of close friends	Actual number
VAR25	Involvement with parents	60=hi, 15=lo
VAR26	Parental emotional support	30=hi, 6=lo
VAR49	Perception of parental rejection	25=hi, 5=lo
VAR50	Differential treatment	35=hi, 7=lo
C. Indiana Data		
PENV13	Feel free to talk about personal problems with friends (in S9)	1=lo, 5=hi
PENV17	Parents understanding and helpful (in S7)	1=lo, 5=hi
PENV19	Friends know how you feel	1=lo, 5=hi
AL14	Don't feel alone with others (in S13)	1=disagree, 4=agree
S2	Scale of expectation for love and affection	hi=high expectation
S7	Scale of family support	hi=high support
S8	Scale of school support	hi=high support
S9	Scale of peer support	hi=high support
S21	Scale of low emotional isolation	hi=lo isolation
S22	Scale of low meaninglessness (meaningfulness)	hi=lo meaninglessness
S27	Scale of Disjunction: S17/S2 (value for love and affection/expectation for love and affection)	hi=lonely
S28	Seek parents if in trouble	hi=hi parents
S29	Seek peers if in trouble	hi=hi peers

Table 3.2, continued
Emotional Isolation

Identification Label	Name of Variable	Scoring Direction
D. San Diego Data		
NVAR15	I don't confide in mother or father (in S21)	1=no, 2=yes
NVAR20	I confide in friends (in S22)	2=yes, 1=no
VAR79	Parents never really understood me (in S1)	1=false, 2=true
VAR184	Do you go steady	2=yes, 1=no
S1	Scale of poor home life	hi=poor
S10	Scale of rejection of parents	hi=hi rejection
S15	Scale of emotional isolation	hi=hi isolation
S17	Scale of isolation from parents	hi=high isolation
S21	Scale of lack of parent emotional closeness	hi=lo closeness
S22	Scale of peer emotional closeness	hi=hi closeness

Table 3.3 MEASURES OF GENERAL INDICATORS OF LONELINESS USED IN THE PRESENT STUDY

Identification Label	Name of Variable	Scoring Direction
A. Office of Youth Development Data		
C3	Feel lonely (in S14)	1=disagree, 4=agree
B. Colorado Data		
VAR59	Time alone	5=hi, 1=lo
C. Indiana Data		
S13	Not lonely: S20-S21 (General Belongingness)	hi=lo loneliness
D. San Diego Data		
NVAR37	I confide in no one (in S15)	2=yes, 1=no
NVAR38	I don't accept anyone's opinion (in S15)	6=always, 1=never
NVAR39	I go to no one for help (in S15)	5=always, 1=never
VAR75	I rarely feel happy	1=false, 2=true
S18	Scale of low self pity	hi=lo pity
NVAR40	I feel restless, anxious, blue	hi=hi, lo=lo

for all attempted scaling of the loneliness concepts. We deal now with each of the four data sets.

a) Indiana Sample - Social isolation in this data set is scored in a reverse direction such that the scale actually measures social integration or social belongingness. The items were worded in a direction which indicated belongingness rather than rejection. The following items were indicated in this scale:

1) I sometimes feel that the kids I know are not too friendly (strongly agree to strongly disagree);
2) I sometimes feel that my family is not as close to me as I would like;
3) I often feel left out of things that others are doing around here;
4) Most people seem to accept me when I am just being myself;
5) I generally feel that I have a lot of interests in common with the other kids in the school (negatively scored);

Thus a high score in this will indicate that the youth is not isolated. Cronbach's Alpha is .50 and Scott's Homogeneity is 0.15.

b) OYD National Sample - Social isolation within the OYD Data Set contained the following items:

1) Most teachers, principals and counselors don't really care about most kids (strongly agree to strongly disagree);
2) My friends don't seem to like me as much as they did in the past;
3) People in my neighborhood do not know or care about each other.
4) Teachers, counselors and principals do not understand kids;
5) Teachers are not interested in you;

6) Parents do not spend enough time with you;

7) Parents do not give you necessary things such as food, a place to live, medical care, etc.

A high score on this variable indicates high levels of isolation. Cronbach's Alpha for this scale was 0.63. This indicates an acceptable level of split-half reliability for this scale. The scale therefore taps into deficits in the relationships to the family, within the school to teachers, and to peers.

c) San Diego - In this data set, we measure two aspects of school social relationships. Both are scored in a direction such that a high score equals high social integration.

General Social Participation - This nominal scale consists of the following items:

1) How many evenings a week do you spend with your friends?

2) How many different kinds of school activities have you taken part in since September?

3) How many different school clubs outside of your regular classes have you attended?

4) Suppose the circle below represented the activities that go on here at school. How far out from the center of things are you?

5) How many people do you hang around with at school?

6) On the average, how many hours a week do you work? (number of hours)

7) During the average week, how many hours do you spend taking part in school extramural activities? (number of hours)

School Social Involvement - A second scaled variable focuses particularly on social involvement of the youth in school. This is a sub-set of the variables used in General Social Participation. The psychometric properties of this scale are only reasonable, i.e. Cronbach's Alpha is .55. The items are:

1) Outside of classes, how many different school clubs have you attended? (a number)
2) Not counting clubs, how many different kinds of school activities have you taken part in?
3) Suppose the circle below represented the activities that go on here at school. How far out from the center of things are you?
4) How many people do you hang around with at school?

d) Colorado - Within the Colorado Data Set, social isolation is measured firstly by scales dealing with school involvement and school involvement - aspiration disjunction. Other than these two scales, we have measured: 1) time spent with friends; 2) the desire to be like friends, and 3) time spent with parents. In each case, a high score indicates that the person spends a large amount of time with friends, has high desires to be like friends, and spends a large amount of time with parents.

School Social Involvement - This variable is scored in a direction such that a high score indicates high school social involvement. Two dimensions have gone into this variable: firstly, the time spent in school extramural activities; secondly, the circle diagram by Coleman has been used to indicate whether the youth feels that he or she is in the center of things, or on the periphery. This circle diagram score has been reversed, so that a high score indicates high involvement. Cronbach's Alpha was .64 for this two-item scale.

School Social Involvement Aspiration-Disjunction - The Colorado Data Set measured both the level of social involvement and also the aspiration for social involvement. By taking the difference between involvement and aspiration, a disjunction score is computed. The questions focus upon social and recreational involvement rather than academic involvement. The scoring direction is such that a score higher than zero implies a state of deficit, i.e. a high score implies loneliness.

4. EMOTIONAL ISOLATION

Scales were constructed in all four data sets bringing together items reflecting emotional isolation. Items which indicated a loss of

or a severe deficit in relationships to a particular person, usually parents or peers, would indicate a state of emotional isolation. Cronbach's Alpha was utilized in the scaling analysis and in the item refinement process. We deal now with each of the four data sets.

a) OYD National Sample - The items are as follows:

1) It's hard to know who to trust these days (strongly disagree to strongly agree);
2) I often feel like nobody cares about me anymore (strongly disagree to strongly agree);
3) There is no adult with whom I can talk over my problems (this has been a serious problem for me);
4) My parents don't understand my problems (this has been a serious problem for me).

This scale has a Cronbach's Alpha .62 and therefore reaches reasonably satisfactory levels of reliability.

b) Indiana Sample - Emotional isolation within this data is measured by the following items:

1) Hardly anyone I know is interested in how I really feel inside (strongly agree to strongly disagree);
2) I often feel alone when I am with other people (strongly agree to strongly disagree);
3) I feel free to talk with my friends about problems when I want to (hardly ever to almost always);
4) How sure do I feel that people I like will also like me (very sure to not sure at all).

This scale is scored in a direction such that a high score indicates low levels of isolation. Thus the scale in fact assesses emotional belongingness or emotional connectedness. Cronbach's Alpha is .55 and therefore is only marginally reliable.

c) San Diego - Within the San Diego Data Set there are a number of separate single item indicators of emotional isolation. In addition, a scale for emotional isolation has been developed. The indicators at the item level include the question of whether the youth "goes steady" or not. There are also scales of lack of parental emotional

closeness, isolation from parents, general emotional isolation, rejection of parent, and poor home life. Additionally, there is a scale of peer emotional closeness.

Turning attention to the emotional isolation scale, the following items were included:

1) I have no one to confide in (yes or no);
2) When I have a problem, there is no one's opinion whom I can accept;
3) When I have a problem, there is no one I can go to for help (always=5 to never=1).

This scale is scored in a direction such that a high score equals high isolation. Cronbach's Alpha for this short scale equals only .44 and therefore this scale is of poor reliability. We additionally have item measures which indicate feelings of restlessness, anxiety, blues.

Two additional variables can be included within the general area of emotional isolation. Firstly, an item indicating the frequency of feelings of happiness. Secondly, a scale of 'self pity' has been developed. This includes the following items:

1) Life usually hands me a pretty raw deal (true, false);
2) I seem to do things that I regret more often than other people do (true, false);
3) I have had more than my share of things to worry about (true, false);
4) I often feel as though I have done something wrong or wicked (true, false);
5) I feel that I'm not quite as happy as others seem to be (true, false).

Cronbach's Alpha is .64 indicating a reasonable reliability. The scale is scored in a direction such that a high score equals lower levels of self pity.

Peer Emotional Closeness - This scale has been developed from the San Diego items to measure emotional closeness to peers. It consists of the following items:

1) I can confide in my friends (2=yes, 1=no);
2) I accept my peers opinions about things (6=everything, 1=nothing);
3) Things about which I would go to my friends for help (6=everything, 1=nothing).

This scale is scored in a direction such that a high score equals high closeness. The psychometric reliability is poor with Cronbach's Alpha reaching only .42. This indicates that the scale is poor with low reliability.

Isolation from Parents - This scale attempts to measure isolation of the youth from his or her parents. A high score indicates high isolation. Cronbach's Alpha reaches .81 and therefore this scale is highly reliable. The scale consists of the following items:

1) When something is worrying or bothering me, does it help to talk to mother or father about it (usually-1, never-5);
2) How many of your problems do you talk over with your father and mother (1=father, 2=mother);
3) My parents never really understood me (true, false);
4) The members of my family were always very close to each other (true, false);
5) I can confide in my mother or father (1=no, 2=yes);
6) I would accept my parents' opinions (1=everything, 6=nothing);
7) I would go to my parents for help (1=everything, 6=nothing);
8) My parents disapproval is hard to take (1=yes, 2=no)

d) Colorado - The Colorado sample did not have a direct indicator of emotional isolation. Rather, there are a series of indirect indicators which provide information on the relative isolation of the youth from peers and parents. These are as follows:

1) The number of close friends;
2) Involvement with parents;

3) Parent emotional support;

4) Perception of parental rejection;

5) Differential treatment of siblings;

6) Time spent alone.

Involvement with Parents - This scale is scored in a direction such that a high score indicates good or intense involvement with parents. Cronbach's Alpha of .77 indicates that the scale has high internal consistency and good reliability. The content of this scale includes Bronfenbrenner's sub-scales of: Instrumental Companionship; Affiliative Companionship; Prescriptiveness, and Power (see Siegelman, 1965).

Parent Emotional Support - This six-item scale is also scored in a direction such that a high score indicates good support. Cronbach's Alpha of .83 indicates high reliability. The content of this scale includes Bronfenbrenner's sub-scales of Affective Reward and Nurturance.

5. MEANINGLESSNESS, AIMLESSNESS AND IDENTITY CONFUSION

An attempt has been made in each of the data sets to provide measures which tap into the form of loneliness dealing with absence of goals, loss of meaning, boredom, aimlessness, etc. This component of loneliness has been dealt with in the earlier literature review of the meanings of loneliness. We now provide the operational approaches to the measurement of this aspect of loneliness.

a) Indiana Sample - In this data set, there are a number of indicators of apathy versus strong goal-orientation and value-orientation. Three value scales were included in the test battery:

1) Value for academic recognition vs. apathy;

2) Value for social love and affection vs. apathy;

3) Value for individuality and self expression vs. apathy.

High scores on each of these three scales indicate a strong value orientation for each of three particular goals. Low scores indicate apathy or disinterest in the three values. The psychometric properties of these scales are all fairly high. Value for academic recognition has a Cronbach's Alpha of .86; value for social love and affection has

a Cronbach's Alpha of .80 and value for individuality has an Alpha of .72. These scales are extremely lengthy; the interested reader can refer to Swanson and Mobley (1972) for the full item content.

b) OYD Sample - Two particular scales assessed different aspects of meaninglessness within this data set. A scale of meaninglessness regarding future vocation and education was developed with a Cronbach's Alpha of .67 and a score either direction (?) indicated high meaninglessness. Additionally, however, a separate scale of aimlessness was developed again with an Alpha of .60 and a score in a direction such that a high score indicated high aimlessness. We will now describe these two scales.

Meaninglessness (future orientation) was assessed by the following items:

1) The only jobs available have no future (this is a serious problem for me) (1=not serious, 3=very serious);
2) There are not enough different kinds of classes or courses at school (this is a serious problem for me);
3) There are not enough different kinds of classes or courses which are useful or really important (this is a serious problem for me) (1=not serious, 3=very serious);
4) There is a lack of alternative school programs like the vocational training school, GED, continuing education programs or free schools (this is a serious problem for me).

The Social Values Confusion scale has a Cronbach's Alpha of .60 and is therefore reasonably reliable. A high score indicates high aimlessness. The item content is as follows:

1) It is easier for others to decide what is right than it is for me (strongly disagree=1, strongly agree=4);
2) One problem with the world today is that most people don't believe in anything (strongly disagree=1, strongly agree=4);
3) It seems that it is harder to know how to act today than it used to be (strongly disagree=1, strongly agree=4);

4) My friends seem to change their minds about things more often than in the past (same as above);
5) Everything changes so quickly these days that I often have trouble separating which are the right rules to follow (same as above);
6) People were better off in the old days when everyone knew just how he was expected to act (same as above).

Identity (stable vs. confused) - This sub-scale, appearing only in the Indiana data, consists of the following items:

1) I sometimes feel uncertain about who I really am (strongly agree to strongly disagree);
2) I often wonder whether I am becoming the kind of person I want to be (strongly agree to strongly disagree);
3) It's hard to know how to act most of the time since you can't tell what people expect (strongly agree to strongly disagree).

Cronbach's Alpha for the three-item scale is .54 indicating a reasonable level of reliability for such a short scale. This scale is scored such that a high score indicates a strong sense of personal identity. We do not offer this scale as a general measure of identity. Other scales are developed which are far superior, e.g. Matteson (1975), Marcia (1966), Constantinople (1969), and others. The above items, however, were available within the present data set and allowed us the opportunity to examine the relationship between identity confusion and loneliness - at least in an exploratory sense.

SUMMARY

In this chapter we outline the measurement approaches for loneliness as used in the present study. Certain of these (i.e. self-reported loneliness, number of friends, time spent alone, etc.) are simple item measures and do not require psychometric evaluations. Other measures such as social and emotional isolation, meaninglessness, and so on, were scaled measures, and thus require psychometric evaluation. Fairly reasonable measures of these variables were obtained for two of the data sets, i.e. OYD and Indiana. However, the measures from the San Diego data were much more difficult to construct, they were not reliable as scales, and were more ambiguous in their meanings. The Colorado data set did not have a good coverage of loneliness indicators and we could not obtain any direct measure for emotional isolation from the Colorado data. There were, however, a multiplicity of indicators of isolation, meaninglessness, and loneliness scattered throughout the data and the results of this chapter indicated that useable measures of the main forms of loneliness, and some minor forms, could be constructed.

CHAPTER 4*

RELATIONSHIPS BETWEEN DIFFERENT ASPECTS OF LONELINESS

Given the relative absence of prior empirical research on loneliness, we now examine the empirical relationships between the different formulations of loneliness. The most general hypothesis is that all of them should, to some extent, be positively correlated with each other. This has been the experience of other researchers who have examined the correlations between different measurement instruments to assess forms of loneliness. Wood and Hannell (1978), for example, report that self-reported loneliness correlates positively with all four sub-scales of the Schmidt-Sermat Loneliness Scales. Additionally, they found that time spent alone correlated positively with measures of loneliness, and that their 'loneliness continuum' scale correlated (.55) with the Schmidt-Sermat General Loneliness Scale. Peplau (1978) (personal communication) has indicated that, in attempting to measure Weiss's conceptualizations of social and emotional loneliness, there was extremely high correlation between these two formulations of loneliness. In factor analytic studies, it was also reported that the two sets of items tended to result in a single loneliness dimension.

In the following we will first examine the general correlation between all of the different aspects of loneliness assessed in the present studies. Next, we will examine the factor structure and the general dimensional structure of these different sets of items and variables. In these analyses we will confine ourselves purely to the interrelationships between loneliness indicators. In later chapters we will examine the relationship between loneliness indicators and other predictive variables, i.e. social and psychological causes of loneliness.

BIVARIATE CORRELATIONS BETWEEN DIMENSIONS OF LONELINESS

In this section we examine the correlations for each of the main forms of loneliness.

* Tables in Appendix 4

SOCIAL ISOLATION

a) With the OYD Data Set, social isolation has a set of correlations which are more or less expected. For example, it correlates with:

Boredom	(.37)
There is no adult to talk to	(.45)
The feeling that parents don't understand	(.48)
Don't know who to trust	(.25)
The feeling that 'no one cares'	(.35)
Emotional isolation	(.59)
Meaninglessness	(.42)
Aimlessness	(.32)
Self-reported loneliness	(.30)

This pattern of correlations suggests the generally positive relationship between meaninglessness, emotional isolation, social isolation, and self-reported loneliness. The extremely high correlation between emotional and social isolation of (.59) suggests that perhaps the two of them might be collapsed into one general loneliness scale. This, in fact, is done in later analysis. The above figures refer to correlations for girls.

Amongst boys in the OYD sample, the same positive correlations between the various forms of loneliness are again found. For example, the correlations are as follows for social isolation:

Boredom	(.37)
No adult to talk to	(.38)
Parents don't understand	(.52)
The feeling that 'no one cares'	(.34)
Emotional isolation	(.61)
Meaninglessness	(.53)
Self-reported loneliness	(.32)

b) In the Indiana sample, social isolation (S20) is scored in a negative direction, thus implying social integration. The scale has a number of high correlations. These include:

The feeling that friends are interested in you	(.21)
The feeling that others will not help you out	(-.21)
Expectations of not being liked	(-.35)
Feeling free to talk over problems with friends	(.23)
Feeling that parents are understanding and helpful	(.34)
Expectations for love and affection	(.29)
Family support	(.38)
Peer support	(.25)
Emotional integration, i.e. the emotional isolation scale reversed	(.47)
Low meaninglessness	(.54)
The loneliness disjunction score	(-.28)

These correlations are suggestive of a positive relationship between different aspects of loneliness. The most interesting correlations theoretically are those between the emotional loneliness scale and the social loneliness scale. The correlation of (.47), as in the OYD Data Set, suggests the high positive correlation. Similarly, the relationship with the meaninglessness scale is significant.

The above relationships held for the Swanson and Mobley sub-sample of girls. Turning to the Swanson and Mobley sub-sample of boys, essentially the same relationships are found. The absence of social isolation amongst boys correlates with the following:

Low expectations of being liked	(-.40)
Parents are understanding and helpful	(.33)
Expectation for love and affection	(.33)
Family support	(.36)
Absence of emotional isolation	(.52)
Absence of meaninglessness	(.49)

c) Within the San Diego data, we have again split the sample into boys and girls and conducted separate correlational analyses. Two scales

were used to indicate social involvement or isolation. These are 1) general social participation and 2) school social involvement. School social involvement, in fact, is a sub-set of the more general social participation scale. In this instance there is a relatively small correlation between the two aspects of social participation and the emotional isolation scale. In fact, the correlations are close to zero. Amongst boys, social participation correlates with going steady (.16) and peer emotional closeness (.18), with no other higher correlations except items which are included in the scale. Similarly, amongst girls, social participation correlates with peer emotional closeness (.13), with no other significant correlations. These results are atypical in the sense that the correlations between these various indicators of loneliness are so low. This data set would suggest either that there are minimal correlations between these variables or that they are poorly measured in this data set.

EMOTIONAL ISOLATION

a) In the OYD data set, boys and girls again have been separated and correlations carried out on the two samples. Emotional isolation within the sub-sample of girls has the following correlates:

Boredom	(.36)
Neighborhood social isolation	(.20)
Friends don't like me as much as before	(.31)
Feelings of awkwardness and shyness	(.40)
The general social isolation scale	(.59)
Teachers don't understand	(.33)
Meaninglessness	(.24)
Aimlessness	(.38)
Self-reported loneliness	(.63)

These correlations indicate that emotional isolation correlates highly with most of the indicators of social isolation and highly with the actual social isolation scale. The correlations with meaninglessness

and aimlessness are somewhat lower. The pattern of correlation for the sample of boys is essentially the same. It might be noted that for boys emotional isolation correlates with social isolation (.61), meaninglessness (.33), aimlessness (.42), and with boredom (.27).

b) In the Indiana sample, the pattern of relationships for low emotional isolation essentially follows that of low social isolation. The pattern of correlations with low emotional isolation is as follows:

The feeling that friends are interested	(.54)
The feeling that people won't like you	(-.44)
The feeling that others will not help you out	(-.31)
The feeling of not being left out	(.39)
The feeling of being accepted	(.44)
Absence of social isolation	(.47)
The expectation of being disliked	(-.60)
The expectation for love and affection	(.43)
School support	(.20)
The absence of meaninglessness	(.40)
Loneliness as a disjunction	(-.42)

These correlations are for the sample of girls. The sample of boys follows essentially the same pattern.

c) The San Diego data has a measure of emotional isolation. This has the following correlates:

Don't confide in mother or father	(.26)
Parents don't understand me	(.18)
Poor home life	(.24)
Isolation from parents	(.47)
The feeling of not being close to parents	(.43)
There is no one to confide in	(.27)
The unhappiness item	(.24)
The tendency not to indulge in self-pity	(-.13)

This latter correlation suggests persons who are highly emotionally isolated tend to indulge in self-pity. Amongst the boys sample for San Diego, basically the same set of relations are again found. These include correlations with being unable to confide in either mother or father (.33), poor home life (.26), isolation from parents (.49), not close to parents (.59), peer emotional closeness (-.25), confide in no one (.36), absence of self-pity (-.16).

d) Within the Colorado sample, parental emotional support provides the only approach to emotional isolation. It might be noted that this correlates with time spent with parents (.48), involvement with parents (.66), perception of parental rejection (-.66) and differential treatment (-.49). The above correlates refer to the sample of girls with the results for boys being essentially the same.

SELF-REPORTED LONELINESS

Examining the correlation matrix for girls in the OYD data set, self-reported loneliness correlates with the following:

Boredom	(.20)
The feeling that friends don't like me as much as before	(.38)
Feelings of awkwardness and shyness	(.47)
The social isolation scale	(.30)
No adult to talk to	(.20)
Parents don't spend enough time	(.21)
The feeling that no one cares	(.50)
The emotional isolation scale	(.63)
Aimlessness scale	(.31)

This pattern of correlations is almost exactly replicated amongst the sample of boys. These results indicate the strong relationship between boredom, feelings of awkwardness and shyness, social isolation, aimlessness, and the emotional isolation scale, with self-reported loneliness.

LONELINESS AS A DISJUNCTION BETWEEN ACHIEVED AND DESIRED SOCIAL RELATIONS

Loneliness as a disjunction has been measured in the Indiana data set. A separate version has also been measured in the Colorado data set. We will examine only these two data sets.

a. In the Indiana data set, examining first the correlation matrix for girls, we find that the disjunction score correlates in the expected directions with other loneliness indicators:

The feeling that friends are interested	(-.36)
The feeling that others will not like you	(.26)
The feeling that others won't help you out	(.33)
The feeling of not being left out	(-.28)
The social integration scale	(-.28)
Low expectation of being liked	(.44)
The feeling of being able to talk over problems with friends	(-.28)
The peer support scale	(-.35)
Emotional integration scale	(-.42)
The meaningfulness scale	(-.26)
The general loneliness scale (i.e. emotional plus social isolation)	(.53)

The pattern of correlations for the boys sample is remarkably similar to that found for girls. We will not comment further on the boys sample.

b) In the Colorado data set, the disjunction between achieved social relationships in school and aspirations for such relationships is also regarded as a measure of loneliness. In the sample of girls, it can be seen that this variable has virtually no correlations with any of the other indicators of loneliness. Marginal correlations were found between this disjunction score and involvement with parents (.12) and perception of parental rejection (.16). Turning to the sample of boys, the only clear-cut correlation is that the disjunction score correlates with time spent with friends (-.35). The narrow context

(confinement to school), the mode of measurement of the variable, i.e. Coleman's Target Diagram (1961), and the reliance on essentially two rating items, could all contribute to low reliability and perhaps this set of low correlations.

MEANINGLESSNESS

The arguments that meaninglessness should be regarded as an important component of loneliness are confirmed by the patterns of correlations found in these data sets. The general results indicate that the pattern of correlations of meaninglessness is highly similar to that found for emotional isolation, social isolation and self-reported loneliness.

a) In the OYD data set, meaninglessness correlates with the following:

Neighborhood social isolation	(.22)
Boredom	(.41)
The social isolation scale	(.42)
The feeling that teachers don't understand	(.41)
The feeling that parents don't understand	(.31)
The emotional isolation scale	(.24)
Aimlessness	(.38)
Self-reported loneliness	(.63)

The pattern of correlation for boys again is a close replication of this above pattern. For example, meaninglessness correlates with boredom (.45), the social isolation scale (.53), the emotional isolation scale (.33), and self-reported loneliness (.65).

b) In the Indiana data set, this variable is scored in a positive direction, i.e. a scale of meaningfulness. In the sub-sample of girls, it has the following correlates:

The feeling that friends are interested	(.20)
Feelings of not being left out	(.38)

Feelings of being accepted	(.36)
The social integration scale	(.54)
The expectation of being disliked	(-.37)
The feeling that parents are understanding and helpful	(.25)
Seldom feeling alone in a crowd	(.39)
The emotional belongingness scale	(.40)
Loneliness as a disjunction	(-.26)
The general belongingness scale	(.53)

The same pattern of correlates is found in the sample of boys in the Indiana data.

FACTOR ANALYTIC STUDIES OF THE GENERAL DIMENSIONS AMONGST LONELINESS INDICATORS

Each of the four data sets involved in the present project contain a fairly large number of separate indicators of loneliness. The above patterns of correlations have been fairly complex, and we attempt to simplify these relationships by means of factor analytic and cluster analytic procedures. The pattern of criterion indicators for each data set are subjected to either factor analytic procedures (principal components followed by oblique rotations) or the BC-TRY V-analysis procedure (Tryon and Bailey, 1970). In each analysis, we referred to utilize oblique rotations rather than orthogonal rotations. We chose the oblique procedures to conform to the idea that although there may be separate major dimensions of loneliness, these dimensions are theoretically expected to be reasonably correlated with each other. Thus a dimension of emotional and social isolation might be expected to exist in the data set but also to be correlated fairly high with one other.

THE FACTOR ANALYSIS OF THE OYD LONELINESS CRITERION VARIABLES

In this analysis we factor analyze item-level data rather than scale data. All of the items entering into the various formulations of loneliness have been correlated and factor analyzed. This is a

fairly important analysis theoretically, since it will indicate whether social and emotional isolation, etc., will emerge as separate dimensions of loneliness or, in contrast, whether the loneliness and peer relationships within different social contexts, e.g. family, school, and peers, will emerge. It thus indicates whether a social context or the type of loneliness will be more structurally important within the data set.

In the data below the amount of variance accounted for by each OYD criteria factor reveals that the first two factors account for 70% of the variance. All factors make a meaningful contribution, however, with the last factor explaining 4.5% of the variance.

OYD CRITERIA FACTORS

Factor	Eigen Value	Pct of Var	Cum Pct
1	3.99441	46.3	46.3
2	2.03839	23.6	70.[illegible]
3	.94923	11.0	81.0
4	.69754	8.1	89.1
5	.55571	6.4	95.5
6	.38797	4.5	100.0

General Structure of the Loneliness Criterion Set

The six factors which emerged from this analysis are as follows:

Factor 1: Boredom - The most important defining variable in this factor is the item indicating boredom, with a factor loading of (.50). The second related aspect of this factor is neighborhood social isolation (.31). Self-reported loneliness correlates only marginally, with the factor having a factor loading of (.14). A further aspect is meaninglessness at school, i.e. the item indicating that the only jobs available are those which 'have no future' (.35).

Factor 2: Emotional isolation from friends - This factor is theoretically important in the sense that it brings together self-reported loneliness with a factor loading of (.64) and the item 'there is no one who cares' (.62). Additional defining items are the feeling of awkwardness and shyness (.67) and the feeling that 'friends do not

like you as much as before' (.53). The factor thus brings together items indicating isolation from friends, self-reported loneliness, and social awkwardness. The factor is not theoretically 'pure', but does provide indications of emotional isolation and deficits in social skills which may be related to such isolation.

Factor 3: Isolation vs. closeness to parents - This factor relates to the family context and particularly parent-child relationships. The items which load highly are: parents do not spend enough time with the child (-.65), and parents are not interested in the child (-.64). A further important defining item is the feeling that 'parents do not understand' (-.51) and the feeling that 'there is no adult to talk to' (-.45). This factor focuses on deficits in the relationship between the child and the parent. Self-reported loneliness has virtually no relationship to this factor (-.09).

Factor 4: Social and normative confusion - This factor brings together items which seem to relate to aimlessness and social confusion. The following items define the factor: the feeling that in the world today, most people don't believe in anything (.35); the feeling that people were better off in the old days when everyone knew just how he was expected to act (.53); everything changes so quickly these days that I often have trouble deciding which are the right rules to follow (.47). This factor brings together the identical set of items which were generated for the social confusion scale. It is interesting to note that one of the emotional isolation items, i.e. there is no one to trust, is strongly associated with this factor with a factor loading of (.31). Self-reported loneliness has no relationship to the factor.

Factor 5 - Isolation from teachers - This factor is dominated by the school context and in particular, the relationship between the adolescent and teachers. The defining items are: the feelings that teachers do not care (.71); teachers do not understand (.27); and teachers are not interested (.32). Most of the other items have factor loadings which are below .20.

Factor 6: Meaninglessness - The items brought together within this factor relate to a sense of pessimism and meaninglessness about school and jobs. The items are as follows: there are not enough useful classes (.66); not enough different kinds of classes or courses at school (.64); there is a lack of alternative school programs (.40), and the feeling that the only jobs available are those which have no future (.27). Finally, items implicating teacher-child relationships also enter into this factor with the feeling that teachers are not interested (.35) and teachers don't understand (.25). Thus, this factor seems to imply a sense of pessimism or meaninglessness about the activities in the school and a poverty in relationships to teachers. The factor is relatively similar to the earlier meaninglessness scale.

General Implications of this Factor Analysis

This factor analysis of items relating to loneliness has tended to support the idea that loneliness is deeply influenced by particular social contexts, i.e. family, school, peer, etc. The factors emanating from this analysis have identified isolation in the contexts of the family, school and peer settings. Thus each of the main contexts has emerged as a separate factor. However, it is important to note that boredom, meaninglessness, and social confusion, have each emerged as separate factors. These factors were almost identical to the initial scaled variables developed from these items. This tends to support the coherence of the earlier scaling analysis. Social and emotional isolation did not clearly emerge from this analysis. However, 'emotional isolation from friends' seems to be a relatively clear indicator of Weiss's concept of general emotional isolation. This particular analysis further indicates the problematic results of relying totally on secondary analysis. The items were not designed to clearly measure emotional and social isolation and the fact that these two concepts have not clearly emerged from the present analysis in no way allows the assumption that the two concepts are not empirically important. In fact, the existence of a separate emotional isolation dimension is partially supported by the existence of the second factor.

COLORADO DATA FACTOR ANALYSIS

Once again in this data set we factor analyzed the various criterion variables. An oblique factor structure using the BC-TRY cluster analysis was again used (see Tryon and Bailey, 1970).

General Structure of the Loneliness Criterion Set

The factors emerging from this analysis are as follows:

Factor 1: Involvement vs. isolation from parents - This is the only reliable factor to emerge from the present analysis with an Alpha reliability of (.82). The defining variables all relate to parent emotional support and parent involvement. The factor is bipolar with one end of the factor indicating involvement and emotional support and the other end of the factor indicating rejection, disinterest and unfair treatment. The factor is scored in a direction such that a high score indicates rejection and a low score indicates involvement and emotional support. It is interesting to note that emotional support and perceived rejection are involved in the factor along with time spent with parents. This suggests that a high amount of time spent with parents is an indication of good emotional support.

Factor 2: Involvement vs. isolation at school - This second factor brings together variables related to school. A high score would indicate a high level of involvement in the social and recreational aspects of school. A low score would indicate that the youth feels left out and on the periphery of the social and recreational activities of the school. The factor is very unreliable (Cronbach's Alpha equals .39).

Factor 3: Involvement vs. isolation from peers - This factor brings together two variables dealing with peer relationships. The factor is unreliable (Cronbach's Alpha equals .23). The two defining variables are the desire to be like friends and the amount of time spent with friends. 'Want to be like friends' has an oblique factor coefficient of (.40) and 'time spent with friends' has an oblique factor coefficient of (-.30). It is difficult to interpret the

meaning of this factor given that the two defining variables have essentially zero correlation with each other and they have factor coefficients in the negative direction to each other. The factor probably indicates some level of peer involvement. Given the extreme unreliability, this factor will not be used in further analysis nor will the unreliable school involvement factor.

General Implications of the Factor Structure

The three factors which have emerged are more indicative of relations within three separate contexts, i.e. 1) the family, 2) the school, and 3) peers, than to the basic dimensions of loneliness. They do, however, indicate the importance of the separate contexts. Since the second and third factors are extremely unreliable and relatively difficult to interpret, these factors are not used in any further analysis.

SAN DIEGO FACTOR ANALYSIS

In this analysis we examine the general dimensional structure of the battery of criterion loneliness variables which were generated for the San Diego data set. The earlier correlation analysis had indicated for each of the main criterion variables, i.e. social isolation, emotional isolation, and so forth, their general correlates amongst each other. In this analysis we examine more explicitly the dimensional structure of this set of loneliness variables.

General Structure of the Loneliness Criterion Set

The BC-TRY oblique V-analysis indicates that three general factors emerge from this battery of variables:

Factor 1: Unhappiness and self-pity - This factor brings together variables indicating isolation at home, poor home life, rejection of parents and variables indicating unhappiness and self-pity. The most important defining variable is poor home life. This factor indicates the importance of home life and the relationships with parents for the general happiness of the adolescent. The Alpha reliability of the factor is good (.74).

Factor 2: Peer vs. parent involvement - This factor focuses upon the orientation of the adolescent towards parents or towards peers. Isolation from parents and lack of parental emotional closeness are important definers of the factor. Youth scoring high on this factor would be emotionally isolated from parents. The factor implies that those youth who are emotionally isolated from parents tend to be closer to peers and to have a higher dating frequency. There may be a transfer of emotional connections from parents to other peers. Cronbach's Alpha is high (.75). The aspect of loneliness indicated by this factor would be isolation from parents. The factor more weakly provides an indication of peer emotional closeness.

Factor 3: Social involvement vs. isolation - This is a poor factor. The correlations of the defining items are relatively weak. The most important defining item is emotional isolation with an oblique factor coefficient of (-.54). Positively loaded on the factor are neighborhood social involvement and absence of self-pity. Thus the one end of this bi-polar scale suggests social involvement and a relatively confident attitude to self. The reliability is poor (.37). Thus we will not regard this as bringing together aspects of social and emotional isolation. The factor indicates that emotional isolation is relatively independent from neighborhood social involvement. This tends to confirm the earlier results from correlation matrices.

General Implications of the Factor Structure

The first and second factors in this analysis have relatively low correlations (.30) with each other. The third cluster has a somewhat negative correlation with the first two (-.24) and (-.35) respectively. Emotional isolation to a certain extent is indicated by Factor 1, purely in the sense of isolation in the home, with the implication that this is associated with unhappiness and self-pity. The second factor is much more understandable as indicating the manner in which lack of parental emotional closeness is associated with, or may lead to, stronger emotional relationships with peers. It is interesting that the general

emotional isolation scale, rather than being tied into either of the first two factors, emerges as a weak definer of the third factor. This analysis suggests the importance of context rather than emotional or social isolation per se. Peer context, School context and Home context are seen to emerge more forcefully than straight emotional or social dimensions.

SUMMARY AND CONCLUSIONS

The correlational analyses in the first half of this chapter have indicated the strong positive correlations between ALL of the various indicators of loneliness. The following tentative conclusions emerge:

1. The measures of social and emotional isolation show strong positive correlations with each other in the data sets in which they were both measured (OYD, Indiana).

2. Self-reported loneliness has strong positive correlations with both social and emotional isolation (OYD). It also correlated significantly positively with most of the other scale and item indicators of loneliness, e.g. boredom, meaninglessness, isolation from parents, aimlessness, etc. This tends to support the contention that these other variables are important components of loneliness.

3. Loneliness measured as a disjunction between desired levels for social relations and achieved levels of social relations correlated highly with other measures of loneliness, including: social and emotional isolation; meaninglessness; pessimism, etc. This tends to support the argument that such disjunctions can be rightly regarded as good indicators of loneliness (Indiana data).

4. These patterns of positive inter-correlations between various indicators of loneliness were found to exist for both boys and girls in separate correlational analyses.

5. Meaninglessness correlated highly with most of the various indicators of loneliness, including: social and emotional isolation, and self-reported loneliness. These findings were reported for both boys and girls.

The factor analytic work reported in the present chapter has also been useful in pointing out and clarifying certain relationships, e.g.

6. Both the OYD and Colorado factor analyses indicate the importance of social context in contrast to the particular kind of loneliness, i.e. emotional or social. Factors emerged in both cases which were primarily defined by the context, i.e. isolation from friends, isolation in the family, and isolation in school.

We acknowledge that this analysis in no way minimizes the importance of Weiss's dichotomy of emotional and social isolation. It does, however, support the direction of contextual measurement of loneliness adopted by Schmidt and Sermat (1976) and confirm the findings of the UCLA researchers (Peplau 1978) regarding the factor analytic separation of separate factors of social and emotional loneliness.

7. Although the context dominated these factor analytic studies, it is important to note that certain other psychological dimensions emerged: boredom, meaninglessness, and confusion regarding social norms. The second factor in the OYD analysis was also strikingly reminiscent of emotional estrangement from peers, and thus gives partial support to the emotional isolation concept.

8. The use of oblique rotations in the factor analysis indicated a number of important relationships:

a. In the OYD analysis, factor 1 (boredom) correlated +.37 with factor 6 (meaninglessness).

b. As might be expected, in the San Diego analysis, factor 1 (unhappiness and poor home life) correlates +.30 with factor 2 (peer orientation and poor home life).

c. Factors representing isolation or loneliness in the three contexts of school, home, and among peers, show only weak positive relationships with each other in the two factor analyses in which they appeared (OYD and Colorado). The correlations, in general, were less than r=0.30.

CHAPTER 5

THE PREVALENCE OF ADOLESCENT LONELINESS

INTRODUCTION

In this chapter we examine the incidence of loneliness. In a later section below, we describe briefly each of the four samples and indicate that, in each case, the samples appear to be reasonable approximations of the overall youth population. At the same time, however, since none of these samples is a strict normal probability sample of the overall national adolescent population, caution should be exercised in generalizing from these particular data sets.

THE ABSENCE OF SYSTEMATIC EPIDEMIOLOGY OF ADOLESCENT LONELINESS

Currently there is no clear, accurate or systematic examination of the epidemiology of adolescent loneliness. Yet, many writers have suggested that adolescence is a particularly critical time in terms of an overwhelming sense of loneliness. Gaev (1976), for example, argues that adolescents are particularly vulnerable to social loneliness. She believes that they are extremely isolated and are frustrated in their needs for belongingness. Konopka (1966) suggests that adolescents experience an overwhelming feeling of not being understood. Collier and Lawrence (1951) indicate that there is extensive isolation and loneliness amongst the adolescent population. Like Konopka, they allude to the adolescent's feeling of being misunderstood by those nearest and dearest to them. Collier and Lawrence suggest that about 25% of boys in their study felt that the father did not understand them and about 20% felt that their mother did not understand them. Amongst the issues raised by Collier and Lawrence was:

1. frequency of occurence;
2. the age of onset, and
3. the age of cessation of such feelings of isolation.

These writers suggested that between 60 and 75% of adolescents indicated feelings of psychological isolation.

Other theorists see the adolescent 'search for identity' as a general component of loneliness. The developmental changes occurring at adolescence would also appear to lead into a period of increased loneliness. Perlman and Peplau (1977) have already alluded to the manner in which change, both social and personal, may be related to the onset of loneliness. The loss of old securities and the emergence of new desires may easily precipitate deficits which may lead into loneliness. Sullivan (1953) earlier suggested that children at different age levels may have different needs regarding social interactions. Sullivan, in fact, suggested that loneliness probably first becomes possible during the pre-adolescent era in which a need for intimacy is added to earlier needs for tenderness and a need for acceptance from peers.

These and other arguments presented in Chapter 2 point to adolescence as an extremely critical time for the emergence of loneliness. Yet in perusing the literature, there are few systematic studies of the actual extent of loneliness in its various manifestations at this critical time period. In the following section, we examine some of the reasons for the absence of such systematic examination of the epidemiology of adolescent loneliness.

DIFFICULTIES IN CONDUCTING AN EPIDEMIOLOGY OF ADOLESCENT LONELINESS

In reviewing the prior research on loneliness, it seems that a number of factors are responsible for the relative absence of a systematic epidemiology.

1. The elusive nature of loneliness and the difficulty of operationalizing the concept: It appears that loneliness varies from barely perceptible to overwhelming. This makes it quite difficult to count and measure. Secondly, there has been considerable disagreement and semantic confusion regarding the meaning of the concept. This perhaps has contributed to the absence of operational measures of different forms of loneliness. In the absence of the clear analysis of the meaning of the concept, it appears that when different authors speak on loneliness, they may be speaking of several different and perhaps unrelated phenomena.

In the last decade as mentioned previously, there has been a much greater attempt to analyze the concept of loneliness (Greenwald, 1972; Hammer, 1972; Liederman, 1968; Bradley 1969; Loucks, 1974, and others). Additionally, at this point, a number of new instruments have appeared in the literature with which to examine different forms of loneliness, e.g. Schmidt-Surmat's loneliness scale (1974), Wood and Hannell's (1977) continuum for self-rated loneliness, Bradley's (1969) measurements, the UCLA measure of Peplau, Perlman et al., and others. However, although new measures have been developed, there still remains a substantial gap regarding incidence and validation studies with these measures.

2. The problem of over and under-reporting: A second problem stemming primarily from the first (i.e. the barely perceptible to overwhelming intensity of loneliness) is the possibility of over and under-reporting. There might be over-reporting amongst the more sensitive and under-reporting amongst the less sensitive or less candid respondents. Additionally, the beliefs and attitudes of respondents may impact upon their tendency to report loneliness. For example, it has been argued that there may be over-reporting amongst those who believe that a certain amount of loneliness is healthy and normal for their situation, where there may be under-reporting amongst those who consider loneliness to be blame-worthy or pathological. Since the general feeling in American society is that loneliness is almost synonymous with failure, then the more general tendency would appear to be towards under-reporting.

3. Intra-personal variation over time: It appears as though loneliness is an experience which may vary dramatically across time. This makes the concept rather difficult to operationalize and difficult to examine. This is clearly a subset of the problem mentioned in paragraph 1. Cross sectional studies in particular would experience problems as a result of this variation.

4. Under-representative and biased sampling: Examining the prior research on loneliness, it seems as though a majority of published studies are based on small and highly unrepresented samples. The findings of

such studies will not be generalizable to other populations. Additionally, such findings are liable to be misleading and in a contradiction to findings from other 'biased' study samples. It has been noted in prior research that there are tremendous variations in the 'incidence of loneliness' across the different studies. For example, Seeman's 1971 study of 400 Los Angeles workers indicated that only 10% agreed with the statement that 'I often feel lonely'. Other surveys using similar questions have lead to 80 or 90% of respondents agreeing with the loneliness question (see Sermat, 1974, as quoted by Weiss, 1974). Variations in the approach to sampling may be partially responsible for such dramatic variations in the incidence of loneliness. The requirement of good sampling practices to insure reliable and representative study populations is critical. Confusing findings will result if good sampling procedures are not followed.

5. The general paucity of empirical studies of loneliness: Loucks (1974), Weiss (1974), and others, have all commented on the continuing absence of empirically based studies of loneliness. Loucks suggests that although there has been considerable theoretical speculation about loneliness, there are only a few brief case descriptions in the mental health literature. In regards to epidemiology, she suggests that there has been no information regarding frequency, intensity, duration from day to day, and so forth, in the lives of normal population samples.

Thus it can be seen that the general absence of systematic mapping and epidemiology amongst the adolescent population is simply a part of a more general absence of empirical and epidemiological studies of loneliness. Theoretical statements, small case studies and psychiatric case descriptions, and fiction appear to dominate this literature.

SAMPLING IN THE PRESENT STUDY AND THE PROBLEM OF GENERALIZABILITY

The statistical sections of the present chapter will present proportions and levels of loneliness within both the general adolescent samples and selected strata of the samples. This raises the question of the extent to which the present findings can be generalized to the adolescent population as a whole. We suggest that this should be done with caution

since each of the four samples utilized in the present study is not a normal probability sample of the total United States adolescent population. In each case, the samples are confined to specific age groups, specific regions, school students only, and only one of the studies (i.e. the Colorado study) involved a random selection of households and families. Therefore, although we view the present four samples as fairly good indicators of the general adolescent population, we urge caution due to the specifics of these particular samples. We now describe the four samples:

1. The Colorado Study Sample: This sample was developed for use in estimating the incidence of runaway within the adolescent population in the state of Colorado. A stratified, multi-stage cluster approach was involved in drawing a random sample of 2400 households. The overall non-response and refusal rate from the total probability sample was approximately 4%. The interviewing took place in the Fall of 1974. Full details of the sampling and interviewing procedures can be obtained in Brennan et al., 1978.

2. The Office of Youth Development National Study: This study collected data from seven sites geographically spread across the continental United States. The overall study was designed to assist in planning for the provision of social services to youth. The object of the study was to provide a mapping of the incidence of various youth problems and needs. In each site, a probability sample of youth was obtained. The samples were obtained either through sampling households, or through a sample of classes within a sample of schools. With the household samples from each household containing youth, a randomly selected youth was interviewed. In school samples, all youth in the selected classes completed questionnaires. Details of the samples can be found in the OYD final report (Elliott, et al., 1975). The age range was confined to 10-18 years of age. In the school samples, questionnaires were self-administered; in households, they were completed by an interviewer. For the purpose of the present analysis, we have collapsed the household and school samples into one large sample. This clearly inhibits our claim

that this can be regarded as a national probability sample, given the fact that two separate interviewing procedures were used. A further weakness of the sample is that the ten geographical sites involved selected large cities and selected rural areas. There is no justification for claiming that these particular ten sites could in any way be taken as generally representative of all possible sampling sites in the United States. Therefore, although this is a large and reasonably representative sample for each specific site, it cannot be regarded as representative of the adolescent population of the United States. Therefore, extreme caution should be taken in generalizing from this sample.

3. The Indiana Sample: This was a sample of junior and senior high school students enrolled in the Indiana public schools (Region 5) for the year 1971-72. Stratified random sampling procedures were used within the school region. Schools were placed into strata with two divisions (Marion County and the surrounding area). The surrounding area was divided into seven naturally existing political units. The schools from the seven counties were then distributed along a continuum of smallest to highest. These schools above the median were designated large schools and those below designated small schools. Two schools were randomly chosen from each of these seven counties (one large and one small school). Marion County was similarly naturally divided into the Indianapolis Public School System and the township schools. All eleven schools in the Indianapolis Public School System and all 10 of the township schools were selected for sampling. A total of 35 high school and junior high school sytems were therefore utilized. The sample was further divided by grade. Individual students were selected by the use of a table of random numbers from lists of students provided by the participating schools. The sample cannot be regarded as representative because of the fact that one of the school districts refused to participate. Full details of the sampling procedure and an outline of the strata of the sample can be found in Swanson and Mobley, 1972.

4. The San Diego Sample: The basic sampling unit in this study was the school rather than the person. There was an enumeration of one

complete grade within the schools selected. The selection of schools was not a probability sample of all schools but a purposive selection of eight schools located in two metropolitan regions of Southern California. These were suburban in character. In neither case was the central city core of the metropolitan area included. All of the students were approximately the same age. Since this study had a main purpose of studying drop-out behavior and prior work had indicated that the first major period drop-out occurs between the 9th and 10th grades, there was a complete enumeration of students in the 9th grade. Procedures can be found in Elliott and Voss, 1974.

GENERAL ADOLESCENT LEVELS OF LONELINESS

In this section we deal with each of the main forms of loneliness: 1) Self-reported Loneliness; 2) Emotional Isolation, Social Isolation and other forms of Loneliness. It is important to note that in this section we are dealing with 'total sample levels' and do not examine the various sub-strata. In the section following this, we will examine sex, age, and social class differences, and so forth.

Self-reported Loneliness

The OYD data set contains a direct measure of self-reported loneliness. The item is worded, "I often feel lonely." The item is embedded in a series of questions which refer to the 'current status' of the youth. The response format is a 4-point scale varying from strongly disagree, disagree, agree, to strongly agree. The item is not ideal for epidemiological purposes in the sense that a strict time period is not present and the item refers to the more ambiguous 'current status' or 'recent feelings' of the youth. However, the question is a good indicator of current levels of loneliness. The results indicate that 16.6% of the OYD sample strongly agree, and 37.5% agree, making an overall 54% of youth agreeing to current or recent experience of loneliness.

Indicators of Various Forms of Loneliness

All of the data sets have various indicators of emotional and social isolation, as well as other indicators of loneliness. We will briefly

mention the question, the response format, and the time period in successively dealing with each of these different indicators of loneliness in the different data sets.

1. Isolation from parents: The first form of isolation we examine here is isolation or detachment from parents. Eighteen per cent of the youth felt that their parents do not properly care for them, 10% believe that their parents do not have sufficient interest in them, 19% believe (or agree) that their parents do not spend sufficient time with them, 10% agree that their parents are not interested in them, and 36% agree that their parents do not understand their problems. These different kinds of deficits, although varying from 10% through 36%, indicate that a very substantial number of youth are detached or isolated from their parents. The items imply insufficient companionship, insufficient interest, and an insufficient understanding between the youth and the parent. Finally, it was found that 22% of the youth agreed that it had been a 'problem' for them that there was 'no adult to talk to'.

2. Isolation from teachers: Turning to teachers, it was found that 33% of the youth (OYD sample) agreed that their teachers did not understand them. The cut-off was taken as 'often' or 'very often'.

Turning to whether the youth felt that teachers were 'interested or not interested in them', it was found that 25% agreed that this was a problem. Nine percent of youth agreed that this was a very serious problem.

Turning to whether teachers, principals and counselors 'really care about youth', it was found that 43% of the youth in the samples agreed that such persons 'don't really care'.

To summarize all of the information on item indicators of the various forms of loneliness, we present the following tables. It should be noted that these refer to total sample levels. Sub-strata levels will be examined in the following section. Additionally, whereas the above comments refer only to the OYD data, we also present the findings from the other three data sets in these tables.

Table 5.1

PROPORTIONS OF YOUTH WHO INDICATE VARIOUS FORMS OF LONELINESS

Question	% Agree (lonely)	% Disagree (not lonely)
A. Within the Family Context		
* I feel that my parents don't understand me (OYD, E)	36	64
I feel that my parents don't really care about me (OYD, E)	18	82
* My parents are not interested in me (OYD, E)	10	90
* My parents don't spend enough time with me (OYD, E)	19	81
* I feel that I have no adult to talk to (OYD, E)	22	78
My parents are not understanding or helpful to me (Indiana)	20	80
I feel I cannot confide in my mother or father (San Diego)	49	51
I feel my parents never really understood me (San Diego)	25	75
Spends less than half-hour per day with parents	33	67
B. Within the Peer Context		
I don't (or hardly ever) feel free to talk about my personal problems with friends (Indiana)	20	80
I often feel alone even when I am with other people (Indiana)	36	64
I feel I cannot confide in friends (San Diego)	30	70
I feel that my friends don't like me as much as they used to (OYD)	28	72
I have no close friends (Colorado)	3	97
My friends hardly ever/seldom encourage or show interest in my ideas or feelings (Indiana)	19	81
I am not sure people I like will also like me (Indiana)	39	61
If I had troubles I am not sure that the people I know would help me out (Indiana)	26	74
I often feel left out (Indiana)	54	46
I don't feel that people accept me for myself (Indiana)	29	71
Spends only one (or less) evenings per week with friends (San Diego)	24	76
I spend almost no time (less than ½ hour) per day with friends (Colorado)	25	75

Table 5.1, continued

Question	% Agree (lonely)	% Disagree (not lonely)
C. Within the Local Community		
* Self-rating for neighborhood social isolation (OYD)	22	78
I am not a member of any clubs or social organizations (Indiana)	28	72
Feeling of uninvolvement in local neighborhood (San Diego)	38	52
D. Within the School Context		
* I feel that my teachers don't understand me (OYD)	33	67
My teachers hardly ever, or seldom, treat me as a person (Indiana)	32	68
Self-rating for 'peripheral' school social involvement (on the 'outside') (Colorado)	31	69
E. General Indicators		
I often feel lonely (OYD, G)	54	46
I sometimes feel that nobody cares for me anymore (OYD, G)	42	57
There is no one I can confide in (San Diego)	11	89
I go to no one for help (San Diego)	12	88
I do not go steady (San Diego)	58	42
I don't accept anyone's opinion (San Diego)	10	90
I often feel restless or blue (San Diego)	24	76
Most of the time I don't feel happy (San Diego)	16	84
* Self-rating for boredom ('nothing to do') (OYD)	51	49
More than 3 hours per day spent alone (Colorado)	27	73
'Never dates' (San Diego)	56	44

* The asterisked items refer to a time period of 'ever-experienced'. Those items without an asterisk refer to 'current status'.

The following issues should be noted regarding the above tables:

1. In each of the four studies, the time period for which the question was asked was often ill-defined. However, in all cases, a time referent was in fact implied within the general context of the questionnaires. For the items which are asterisked in the tables, the time period was 'ever-experienced', thus referring to all of the experience to date of the youth. This is a particularly loose criteria referring to an open-ended time period. In all of the other data sets, the focus of the questions was on the youth's current status, current feelings, or current situation. Thus when an item asks how many friends the youth has, the response refers to the current situation of the youth. This second approach is, therefore, an indicator of the current feelings or current situation of the youth.

2. The specification of particular items into social isolation, emotional isolation, or a general indication of loneliness, is highly problematic at a theoretical level. We acknowledge that the location of all of the above items into these very general categories would be extremely difficult. For instance, the location of an item indicating 'boredom' within the general category of, say, social isolation is clearly arguable. Items such as boredom or shyness could be regarded as indicating multiple different theoretical concepts of different categories of loneliness. Additionally, items such as 'time spent alone' are almost impossible to locate in any of the categories of loneliness. We have indicated a third general category of general indicators into which we have classified certain variables such as time spent alone, self-reported loneliness, and others.

3. Finally, we acknowledge that there is a substantial variation in the levels or proportions of youth indicating agreement with the various forms of loneliness indicators. We see this variation as stemming from firstly, the seriousness or intensity of the particular form of isolation, and secondly, from the generality of the experience. The more specific and more serious items would generally have lower proportions than the more general or less serious. For example, the feeling that 'there is no one to confide in' appears to be an indicator of serious loneliness.

Similarly, the feeling that 'there is no one to go to for help'. In contrast, the feeling of 'occasionally feeling left out' appears to be an indicator of a less serious state of isolation. Additionally, certain questions (e.g. for 'not going steady' or 'seldom dating') reach high proportions. We view these (given the age groups that we are dealing with) as fairly general non-serious indicators of loneliness.

LEVELS OF LONELINESS ACROSS DIFFERENT STRATA OF THE YOUTH POPULATION

In this section we examine proportions and mean differences across a variety of strata of the youth population in regard to the experience of loneliness and the various indicators of loneliness. In the case of item questions, we will provide simply proportions of the various segments of youth who agree to an experience of loneliness. In regard to scaled variables (e.g. the scales of emotional, social isolation, and so forth) we have conducted ANOVA tables. These are in Appendix 5.

Sex Differences

The following findings were established regarding the differential levels of the experience of loneliness across boys and girls.

1. Self-reported loneliness: The OYD sample provided the opportunity to examine self-reported loneliness across segments of boys and girls. (See Table 5.1.) The data strongly suggests that girls report loneliness to a much greater extent than boys. 61.3% of girls versus 46.5% of boys reported agreement to the experience of loneliness. Strong agreement was found in 20% of girls versus 13% of boys.

2. Other single-item indicators of isolation: Table 5.1 indicates the general proportions for boys and girls on a number of items which indicate isolation. It is clear that in most cases the girls far exceed the boys in terms of per cent agreement with each of these problems. For instance, a dramatic difference is that 61% of girls feel that there is nothing to do whereas only 47% of boys. Girls similarly on each of the items indicating estrangement from teachers and estrangement from parents have substantially higher proportions of agreement with the loneliness item than do boys.

3. Scaled measures of loneliness: The OYD ANOVA analysis comparing boys and girls on various indicators of loneliness did not find any significant differences between any of the indicators, e.g. emotional isolation, social isolation, meaninglessness, and so forth. None of the F ratios reached significance. (See Appendix 5, Table 5.9). The Colorado data, however, indicated that girls had a significantly higher score for perception of parental rejection than did boys (F ratio of 4.39 with a probability of .03). Additionally, boys in the Colorado sample perceived a marginally higher level of parental emotional support than did girls (this difference was significant at beyond the .10 level. See Table 5.8 in Appendix 5).

The San Diego ANOVAS are somewhat misleading due to the extremely large numbers of cases entering these analyses. Due to this, a very small difference can be highly significant. The eta^2's in Appendix 5 Table 5.10 indicate that there are virtually no differences in terms of real explanatory power between the scores for boys and girls in these samples. Most of the eta^2's are below 1%. The indications of this analysis, however, suggest that boys spend a slightly larger number of evenings with friends, are somewhat more socially involved, have a somewhat better relationship to parents, have a higher tendency to go to no one for help, and have a slightly lower tendency to feel restless, anxious or blue. Girls, on the other hand, appear to have marginally higher scores for neighborhood social involvement, school social involvement, ability to confide in friends, going steady, and a lower score for emotional isolation. The low reliability of this emotional isolation scale, however, suggests that extreme caution should be used in accepting this result. Additionally, girls in this data set have a higher score for peer emotional closeness than do boys. Again, since the psychometric reliability of this scale is only .42, the result should be interpreted with caution.

In the Swanson and Mobley ANOVA comparisons, it is again found that for the great majority of loneliness indicators, there are no significant differences between boys and girls. However, the following sex differences were found: boys join a fewer number of clubs, they have a higher expectation for love and affection, a lower level of perceived peer support,

a lower level of emotional isolation, a lower disjunction loneliness score, and a lower score on the general belongingness scale. Clearly, these results are not generally consistent with each other. Yet all of these results reach significant levels at beyond the .05 or the .10 levels. There are no significant differences on: feelings of being left out; feeling accepted for oneself; social isolation; expectation of being liked; feeling alone when with others; family support; school support; meaningfulness, and only marginally significant differences on the others. In each case, the eta^2's do not go beyond 1%. These results again indicate almost insignificant differences and clearly minimal differences between boys and girls on all of these various indicators of loneliness (see Table 5.11 in Appendix 5).

Age Differences

In the OYD data there are only marginal differences in levels of self-reported loneliness between the three age categories, 10-12, 13-15 and 16+. In all cases, the age groups are relatively close to the overall sample averages (as presented earlier). Table 5.5indicates the general proportions of youth in the different age brackets agreeing with various item indicators of loneliness. It can be seen that some trends are obvious. There is a gradual increase with age in the following:

The feeling that teachers don't understand the youth;

The feeling that parents lack interest in the youth;

The feeling that parents don't understand the youth;

The feeling that there is no adult to talk to;

The feeling that there are not enough things to do (the most dramatic difference - 35% in the youngest age group versus 63% in the older age group)

In the Colorado data, some further interesting age differences are found. It is found that there is a steady decrease in the amount of time spent with parents. This is significant showing a decline from the youngest age group to the 16+ age group (significant at beyond .05). Similarly, involvement with parents shows a similar significant decline, as does parental emotional support. Time alone almost reaches significance with youth spending a gradually increasing time alone in the succeeding age groups.

In the OYD ANOVA analysis it is found that although most of the indicators of loneliness show no significant differences across the three age groups, there are some consistent trends. It is found that there is a significant increase in the feeling that 'parents don't understand' from the youngest to the oldest age group. There is a significant drop in the feeling that 'no one cares' with the youngest group having the highest score. This may indicate a consolidation of peer relationships during the middle and late adolescent years. Normative confusion or aimlessness shows a significant drop from the youngest to the oldest group.

In the Indiana data, there are no significant differences between the various indicators. The gradual detachment from parents, however, is again suggested with a steadily insignificantly declining tendency to 'go to parents if in trouble' from the youngest to the oldest age group.

Social Class Differences

The OYD data suggests that there are different rates of self-reported loneliness from the highest to the lowest classes, with the lower classes reporting somewhat higher levels of loneliness. For example, in Class 1, only 45.1% indicate loneliness whereas 62.5% report loneliness in Class 5 (the lowest class). The intermediate classes show less of a trend, although Class 2 also has relatively low rates of reporting loneliness. Table 5.7 indicates the various item forms of loneliness across the social classes.

The Colorado ANOVA analysis indicates that there are no significant differences between the various indicators of loneliness. Additionally, the eta^2's are almost non-existent between the mean scores indicating that there is almost no variation in such various social classes. However, it should be acknowledged that we do not have a direct measure of social, emotional or self-reported loneliness in this data set. There are no differences between the social classes and time alone, time with parents, school involvement, and so forth.

The OYD ANOVA analyses across the scaled measures of loneliness also indicate no significant differences with the exception that there is a slight trend across the social classes such that the lower social class youth indicate a feeling of 'no adult to talk to' to a marginally higher extent than the upper social classes. Similarly, the San Diego ANOVAS between the social classes for the various loneliness indicators indicate very few significant differences and only minimal eta^2's where a significant difference is in fact found. Significant differences are easier to find in the San Diego sample due to the very large sample size. However, the eta^2's for these do not extend beyond 1%. This indicates that although four differences were found to be significant beyond the .05 level, none of them have an eta^2 which is beyond 1%. Thus they have virtually zero explanatory or predictive power.

Finally, the Indiana sample has a number of apparently significant differences (again with the very small eta^2's). It was found, for instance, that the lower social class youth appear to have a tendency to be members of a slightly larger number of clubs, to have slightly higher levels of family support, and somewhat lower levels of school support, and marginally higher levels of meaninglessness. Again, however, these differences are extremely minimal, and may safely be ignored due to the extremely low eta-squares involved.

Ethnic Differences

The OYD data set ANOVAS (see Tables 5-9 in Appendix 5) did not establish any clear differences between Black and White youth on the various indicators of loneliness. None of the eta^2's were beyond 1%. We did not examine ethnic differences in the other data sets. Ethnic differences, however, were additionally examined by cross tabulation of ethnicity against the general multivariate patterns of loneliness. The suggestion from these additional analyses was that there was a disproportionate number of minority youth falling into the highly lonely categories of the multivariate typology analysis (see Patterns of Loneliness later in this report).

THE INCIDENCE OF MULTIVARIATE PATTERNS OF LONELINESS ACROSS THE ADOLESCENT POPULATION

The above information on the incidence of various items and scales of loneliness has been extremely complex. The large number of indicators of loneliness have made the comprehension of general epidemiology somewhat difficult and complex. To summarize this information, we adopt the strategy of using one general classification variable (i.e. the taxonomic analysis) as a general epidemiological tool (see the following chapter). In this section, we simply examine the proportions of the various samples which fall into the generally highly lonely types in each of the typologies in the various samples. The table below indicates these proportions. In three of the typological analyses (i.e. San Diego, Indiana, and the Office of Youth Development), five differentiated classes of youth were found. In each case, D and E as indicated in the table below were either often lonely or seriously lonely. The proportions of youth falling into these two categories are illustrated in the table. The other three classes (i.e. A, B, and C) vary from clearly non-lonely, gregarious, well-adjusted youth to an intermediate class (C). The evidence from the multivariate taxonomic analysis suggests that around 20% of youth fall into the 'often lonely' classes with a smaller percentage varying between 10% and 20% falling into the 'seriously' lonely class. The actual descriptions of the forms of loneliness of these various classes can be found in the next chapter. We present this information in the present section primarily to indicate a summary of the complex mass of data on the epidemiology of loneliness. The taxonomic analysis simplifies this epidemiology by compressing the various loneliness indicators into one general loneliness typology.*

Table 5.2

PROPORTIONS OF YOUTH SAMPLES FALLING INTO MULTIVARIATE CLASSES OF LONELY VS. NON-LONELY

Multivariate Classes	Colo.	S. D.	Indiana	OYD
	N=462	N=768	N=555	N=866
A. Clearly Non-lonely	54.1%	13.4%	14.9%	19.1%
B. (1) Non-lonely	17.5%	28.0%	21.3%	18.4%
C. Intermediate	11.7%	22.2%	19.9%	32.6%
D. Often lonely	16.7%	24.9%	23.8%	19.7%
E. Seriously lonely		11.4%	20.1%	10.3%

* The actual descriptions of the seriously lonely class in each of the data sets have a remarkable similarity. This similarity can be examined with the descriptions provided in the following chapter. In each case, the seriously lonely group is characterized by emotional isolation, social isolation, rejection by parents, rejection by teachers, meaninglessness, and so forth.

SUMMARY

This chapter initially reviews the prior literature on the epidemiology of adolescent loneliness. The paucity of accurate information is noted. Some reasons for this state of affairs are examined. Details of sampling for the present studies are then provided.

General levels of loneliness are then examined using scores and percentages on the various indicators of loneliness. 54% agree to experiencing loneliness, with a sub-set of 16.6% indicating 'strong agreement' that loneliness is a problem for them. Data on a large variety of other indicators is provided. This covers school, peer, and family relationships. All of the indicators suggest extensive loneliness within these populations, for both general loneliness, and for the indicators of isolation within each of the major social contexts.

Girls report more loneliness than boys for both self-reported loneliness, and for a number of the other indicators. Examining the scaled measures of loneliness, however, these differences generally disappear or are extremely slight. Similarly, there appear to be only minor differences on the scaled general measures of loneliness across the three age groups. However, when specific kinds of deficits are assessed there are a larger number of trends evident in the data, e.g. boredom increases dramatically from U12 to 16+, there is an escalating separation from parents, and so on. Social class and ethnic differences are almost insignificant when examining the scaled variables. For self-reported loneliness, however, the data suggests that the lowest social class exhibits higher levels of loneliness (62%) as against the highest social class (45%).

To summarize and integrate the information on epidemiology we utilize the multivariate classification of loneliness items (see Chapter 6). This indicates that between 10 to 20% of each youth sample are quite seriously lonely, with approximately 20% also showing substantial indications of loneliness.

CHAPTER 6

DESCRIPTIVE TAXONOMIES OF ADOLESCENTS ACCORDING TO TYPES AND LEVELS OF LONELINESS

In this chapter we investigate the multi-dimensionality of loneliness as a set of types of patterns. Each of the earlier factor and cluster analyses revealed different aspects of loneliness. Earlier researchers, e.g. Loucks (1974), Bradley (1968), Schmidt and Sermat (1976), Wood and Hannell (1977) and others have alluded to the multi-dimensionality of loneliness. Our present task is to examine, within the confines of the present set of variables, whether the distribution of loneliness is multivariate normal or whether it conforms to a more distinct multi-modality. Such multi-modality would give evidence of different 'patterns' or 'types' of loneliness.

Our working hypothesis is that the various dimensions of loneliness are NOT distributed in a clear multivariate normal form and that multi-modality is a distinct possibility.

THE PURPOSES OF THE PRESENT TAXONOMIC ANALYSIS

The utilization of taxonomic procedures involves a number of distinct research goals. These are as follows:

1) Discovery of unexpected forms of loneliness. The mapping of empirical forms of loneliness is in its infancy. Weiss (1973) has already indicated that there is no secure taxonomy of loneliness. Neither the descriptive dimensions nor the typological forms have been clearly identified. There is a requirement to provide a descriptive classificatory mapping of this domain. To the extent that complex interactions exist between the different dimensions of loneliness, it may be exceedingly difficult to 'see' such structures within complex multivariate data. The approach utilizing multivariate histograms by means of multivariate cluster analysis can serve to reveal whether such micro-structures exist within the data set. In this case, we are utilizing multivariate taxonomic mapping procedures to 'unravel the micro-structure' of this phenomena. Serendipitous discovery is clearly an important function of such descriptive taxonomic endeavors. We may discover patterns of loneliness

which were unexpected according to any prior theory. If such forms or patterns of loneliness are discovered, these may become new conceptual units for further examination and explanation.

2) Clarification and Description of the Nature of Loneliness. At the present stage of research on loneliness, there is no existing description of the multivariate complexity of this issue. Is loneliness uni-dimensional, multi-dimensional, distributed in a uniform manner or in a typological manner? Is the distribution even, random, or structured? Is it continuous or discontinuous? Such questions have simply not been answered. If loneliness is distributed in a discontinuous manner, we may then seek for levels, stages, or different explanations for the different patterns or forms of loneliness. A prelude to seeking such explanations is the simple description of the phenomena. In this sense, description precedes theory development. It should lead to better statement of hypothetical classes which might be used for theory development.

By means of systematic taxonomic description, we will attempt to assure a greater clarity in our universe of discourse. Most prior conceptualizations regarding forms of loneliness have been anecdotal or impressionistic. Many of these are neither clear, nor objective nor reliable.

3) Avoiding the Aggregative Fallacy. In many instances, we will be comparing lonely to non-lonely adolescents. While this approach to identifying the characteristics of lonely adolescents is a reasonable first step, it also implicity assumes that youth can be identified as 'lonely in general' and that there are no important subdivisions within the general class of 'lonely adolescents'. By conducting descriptive taxonomic mapping within a domain of loneliness, we will be insured that we are not working with a misleading general aggregation. The identification of 'non-global forms' of loneliness will allow additional comparative studies to be done which may move the discussion of loneliness into more precise levels of analysis. In any event, the aggregative fallacy will have been avoided.

METHODOLOGICAL APPROACHES TO TAXONOMY CONSTRUCTION

Creating the Taxonomy

In this section, we briefly review the methodological approaches to creating taxonomies of lonely youth. A detailed description of this methodology is probably inappropriate for this report. The analytical sequence in each case involved the initial examination of data with a natural mode-seeking cluster analysis program. The version used in the present analysis is a variant of Wishart's (1969) Mode Analysis Procedure. The variant was developed by Huizinga (1978). It is a natural mode-seeking cluster analysis method. It utilizes Euclidean distance as a similarity approach and is based on a concept of a 'type' which is unconstrained according to shape. This differentiates it from most of the 'minimum variance' clustering methods which constrain clusters according to variance. A discussion of the relative advantages and disadvantages of natural modes versus minimum variance clusters can be found in Wishart (1969). The second step in the analytic procedure was to apply a K-means multivariate clustering approach to the data if the natural mode-seeking method indicated that there were no clear modal structures. In the following four applications, only one data set indicated clearly separated modal structures. The other three were found to be more or less continuously distributed within the measurement space.

The application of K-means procedures (see Ball, 1965; Hartigan, 1974; Everitt, 1974; Wishart, 1969, and others) will provide a 'partition' rather than well-separated types. This second stage of the analytic procedure therefore utilizes Hartigan's (1974) idea of a multivariate histogram. In the multivariate histogram concept, we are providing a description of different segments of the multivariate sample space rather than describing well separated types. In fact we acknowledge that well separated types in the sense of Cattell's idea of 'homostats' (see Cattell and Coulter, 1967) do not exist in these data sets. To the non-mathematical reader, this concept simply means that the data space has no clear boundaries between different type structures. An important procedure in taxonomic construction is the removal of outliers. The approach to the

identification of outliers utilized a K-linkage method as described by Wishart (1969) and Huizinga (1978). This linkage method essentially identifies outliers according to a minimal number of 'nearest neighbors'. If there are a very few number of nearest neighbors within a certain pre-specified similarity criteria, then the case is regarded as an outlier and is removed from the analysis. In the present sequences of analysis, between 5% and 10% of the cases were generally removed from the analysis prior to the K-means procedure.

In all of the cluster analytic procedures used in the present project, Euclidean distance was used as a measure of similarity. We acknowledge that other approaches are possible regarding the measurement of similarity (see Green and Rao, 1969; Wishart, 1970, and others).

Reliability of Loneliness Taxonomies

Three approaches were used to establish the reliability of the present findings. 1) Samples were slit into two halves and separate analyses were carried independently upon these two halves. At the conclusion of the taxonomy seeking procedure, the results of the two separate analyses were compared to each other. Cross typology matrices were developed in which the similarity between the centroids of the emergent types were compared to the centroids in the other half sample. To the extent that the diagonals of these matrices are high and the off diagonals are low, then we have evidence that the same types were established in the two separate procedures. 2) A second approach involved the use of different methods of analysis. Results should not be an artifact of the statistical method used. Therefore, in the present sequence of analysis, both Ward's Minimum Variance Method (see Ward, 1963) and the K-means iterative procedure (see Ball, 1965; Hartigan, 1974, and others) were used. The results emerging from these two separate and distinct analyses were then compared. 3) A further approach to reliability involved the utilization of different starting solutions for the K-means procedure (see Everitt, 1974, and Wishart, 1970). To the extent that the K-means procedure converges upon the same solution when provided

with radically different starting solutions, we can be confident that a fairly reliable structure is present in the data.

Validity of Taxonomic Findings

Two approaches are important to mention in regard to the validity of the present findings regarding forms of loneliness:

1) Content Validity of the Measurement Space. A critical question is whether the measurement space for the taxonomic analysis actually provides a broad coverage of the various forms of loneliness. In the present analyses, the general structure of each of the three measurement spaces included:

a) measures of social isolation;
b) measures of emotional isolation, and
c) measures of meaninglessness or identity loss or identity confusion

Basically, we entered all of the various indicators of loneliness into the measurement space for each of the four separate samples. In the OYD and Indiana data sets, we had a fairly good set of measures of the various forms or dimensions of loneliness. However, the San Diego and Colorado data sets had certain inadequacies in terms of their coverage of loneliness. The factor analytic studies described in the previous chapter provides explication of the dimensionality of each of the four measurement spaces which were used in these taxonomic studies.

2) Cross Classification of the Taxonomy Against Theoretically Relevant Variables. A second approach to validity involves the cross classification of the emerging taxonomies against variables which purport to explain or predict loneliness. To the extent that strong associations exist between the various emergent types and such 'theoretically relevant' variables, then an argument can be made that construct validity of the taxonomy is being established.

Measurement Space for the Present Analyses

The measurement spaces of the present taxonomic analyses involve only the loneliness variables. Variables such as time spent alone, the numbers of friends, measures of social participation, and so forth, have

been also included in the present measurement spaces as indicators of loneliness.

The Internal Structure of Taxonomies

An important aspect of the evaluation of the emerging taxonomy concerns their internal structure. This includes information regarding the internal structure of each specific cluster, distance between boundaries, angular separation between clusters in the data space, and distance separation between the centroids of the separate types. Each of these aspects of information is indicated by particular coefficients. A Distance matrix is available to indicate distances between centroids; a Cosine matrix indicates angular separation between centroids, and a measure of distance between boundaries is computed. The maximum radius of each cluster has been computed to indicate the relative range of the cases falling into each cluster and a central density measure has been computed. This central density measure simply examines the distribution of cases within the cluster. The proportion of cases falling within half of the radius of the cluster has been computed. This indicates if there is a strong central tendency regarding the dispersion of points within the cluster. Finally, the contribution of each variable to the clustering structure has been assessed by means of an H coefficient (i.e. the univariate correlation ratio, see Tryon and Bailey, 1970). Additionally, the cluster homogeneities have been computed (see Huizinga, 1978).

Deciding on the Number of Types of Loneliness

In each of the separate analyses of the data sets, an important decision was the specific number of clusters or types present. In the case of the Colorado data set, the natural mode seeking method could not find any clear well separated modes. Therefore, the K-means iterative procedure and Ward's hierarchical were utilized. Ward in general indicated that there were five classes. However, the utilization of Ward to decide on the number of clusters is fraught with problems (see Huizinga, 1978; Everitt, 1974, and others). Therefore, we arbitrarily decided to utilize K=5 as a general number of clusters. Given the fact that there were no discontinuities in these distributions, and that outliers had

been removed, the indications from Ward's method were followed. We acknowledge that this is a relatively arbitrary approach and that with a much more extended analytical approach, we might have been able to identify a natural K level. However, all of the indications from the data were that a natural K level did not exist.

COLORADO SAMPLE TYPOLOGY

The modal cluster analysis (see Huizinga, 1978) was applied to the full sample of youth stemming from the Colorado study. The modal analysis indicated that there were four replicable types within the loneliness measurement space. One very large cluster and three smaller types emerged. The analysis was replicated with a K-means clustering procedure and basically the same types emerged. This indicated a reasonably high level of cross method reliability for these findings. Following the establishment of the typology, a series of computations were conducted to establish the internal structure of the typology. Following this, a series of one-way ANOVAS was conducted to establish or examine the predictive validity of the typology. Additionally, a discriminant analysis was run from theoretical predictor variables to examine whether the four types could be predicted, i.e. to examine whether type membership could be predicted on the basis of theoretical and causal variables. We will now examine in more detail the various aspects of this typology.

Measurement Space for the Colorado Typology

The measurement space (i.e. within which the cluster analysis seeks for separate modal types) included the following variables:

1) school social involvement vs isolation;
2) school social involvement aspiration disjunction;
3) time spent with friends, high vs low;
4) the desire to emulate or be like friends;
5) parental relationships (bad vs good);
6) the number of close friends, and
7) time spent alone.

This set of variables emerged from our search of the Colorado data as the most clear cut and simple aspects of the general criterion domain

of loneliness. Note that we explicitly have excluded from this all of the various social and psychological variables. We deemed that this typology was not attempting to 'explain' loneliness, but rather to describe particular form or patterns of loneliness.

There are weaknesses in this set of criterion variables. The most obvious weakness is in the area of content validity. There is no clear measure of emotional isolation and the measures of social isolation are relatively indirect. The aspiration involvement disjunction is a good variable in terms of its theoretical validity but the present version focuses only upon the social contact in the school and is therefore rather narrow. Additionally, time spent with friends, the desire to be like friends, and the number of close friends, although relevant to the general criterion domain of loneliness are not regarded as clear cut indicators of loneliness. The parental relationships scale is extremely useful, as is 'time spent alone' and the two involvement scales. Thus this domain, although containing some useful and relevant variables, is by no means complete. Any typology emerging from this analysis should clearly be regarded as only a partial typology of loneliness. This analysis in particular should be viewed as an exploratory analysis and should not be regarded as our final typology of forms of loneliness.

Profiles of Loneliness: Descriptions of the Types (see Tables in Appendix 6)

In the following we give brief descriptions of the four types which were identified by the multivariate analysis. We provide initially the description of the types purely in terms of the seven loneliness indicators. The full meaning of these types, however, can only be appreciated if all of the cross-referencing information about them is presented. Thus in the second paragraph, we examine the correlates of these types which were established by means of ANOVA.

Type I: Normal Youth (54% of the sample)

a) Criterion Profile: These youth have an average involvement in school and a slightly higher than average 'school-involvement aspiration disjunction'. This indicates that although they have average involvement,

they have somewhat higher interests in increasing this involvement. They spend above average amount of time with friends, and have an average tendency to want to be like friends. They have few close friends and do not spend a great deal of time alone. Relationships with parents are fairly good. It can be seen that this profile on the criterion variables for this very large type is relatively undistinguished in any particular direction. There are no important deficits of any kind.

b) Correlates of this Type: The correlates of this type also confirm the relatively healthy orientation of these youth. Within the family, all relationships appear to be reasonable and the family is stable. These youth have no feelings of rejecting their parents. They are close to average on all of the parent-child interaction scales and the powerlessness scales. Their parents are reasonably satisfied and there is no indication of rejection. Similarly, there is no indication of excessive physical violence, battering, overprotectiveness, deprivation of privileges, and so forth. These youth do reasonably well in school (according to their GPA) and they spend an average amount of time on homework. They are positively labeled by teachers. Thus, the indications are that for family relationships, school relationships, and personal variables (such as normlessness, self-esteem, self-reported delinquency), these youth fall into a generally normal or non-troubled range.

Type II: Rejected Older Youth (16.5% of sample)

a) Criterion Profile: These youth appear to have a miserable time in the school and a miserable time in the home. They feel rejected in both of these contexts. The data indicates that they have a very low level of school social involvement. There is a minimal disjunction score indicating that these youth have no interest in improving their school social involvement. Relationships with parents are extremely poor (in fact the poorest of all four types). Turning to friends, however, it is clear that these youth spend a great deal of time with peers and that they have an above average number of friends. At the same time, they spend a large amount of time alone.

b) Correlates of this Type: The correlates indicate the problematic situation of these youth. Their family relations are characterized by the following: higher rejection of parents; feelings of powerlessness within the family; high family instability; expressive rejection by parents; parental dissatisfaction with choice of friends; parental dissatisfaction with the youth themselves; battering; social isolation as a form of punishment, and so forth. Additionally, parental attempts at socialization seem clearly inadequate. There is a minimal level of principled discipline, high physical violence and high emotional rejection. In the school, the situation is similarly dismal. These youth have the highest scores for disliking school, rejecting school; minimal educational aspirations, occupational aspirations; low school involvement, low grade point, repeated grades, teacher negative labeling, minimal time spent on school activity, lack of school involvement, and time spent on homework.

At the personal level, these youth are highly normless, have very low self-esteem and have high scores for drug abuse.

Type III: Older Socially Isolated Youth (11.7% of sample)

a) Criterion Profile: The Criterion Profile of these youth is somewhat of an anomaly. They have a high involvement in school activities. Yet, at the same time, they spend a minimal amount of time with friends. They do not want to be like their friends and they have virtually no close friends. And finally, they spend a very large amount of time alone. Relationships with parents appear to be reasonably good (i.e. near average). Thus it would seem that the problem for these youth lies in the general area of peer relationships.

b) Correlates of this Type: The correlates of this type do not yield any clear explanation for the above criterion profile. The correlates confirm the extremely high level of involvement in school activity. These youth are reasonably successful in school. They do not reject school and in fact quite enjoy school; they have an average to high level of education aspirations, and they are highly involved. Grade point is average or high and they are relatively positively labeled by teachers.

One clue to the peer problems of these youth is perhaps found in the family relationships area. They appear to have much better relationships with their parents than most youth in this sample. They do not appear to be shy, powerless, or to have low self-esteem or normlessness. Their parents are satisfied with them and do not reject them.

The cross tabulations indicate that a large proportion of these youth fall into the 16+ age bracket. There is equal representation of social class and the two sexes.

Type IV: Younger Peer Isolated Girls (17.5% of sample)

a) Criterion Profile: The most outstanding part of this particular profile is the minimum time spent with friends. These youth spend less time with friends than any other type. At the same time, they have the highest score of all the types for 'wanting to be like' their friends. In most other aspects of the profile, these youth appear near average. They have a high level school social involvement. They have good relationships with their parents, an average number of close friends and they tend not to spend time alone. This suggests that since they spend such little time with friends, they perhaps overcompensate by spending a very large amount of time either at school or with their parents.

b) Correlates of this Type: The correlates of this type add to the above description and seem to explain some aspects of this form of loneliness. These youth have a very good situation in school. They like school, and have high educational aspirations, high occupational aspirations, good grade point average, and positive labeling on the part of teachers. They spend a large amount of time on school activities. These youth spend more time on homework than any of the other three classes. Within the family, their relationships are again very good. They do not reject their parents, and most aspects of parent-child relationships appear to be positive. One part of this profile may be significant, i.e. they have a significantly high score for feelings of powerlessness over others. This is coupled with the highest score (although not significantly high) for shyness. They also have the least sense of normlessness of all of

these types and the least sense of societal estrangement. This suggests that these youth are highly conventional. This conventionality is consistent with two aspects of parent-child relationships, i.e. higher than average scores for principled discipline, protectiveness, and achievement demands on the part of parents. As might be expected, these youth have the lowest scores for all of the indicators of juvenile delinquency.

Structural Aspects of the Typology

This typology consists of a series of fairly well separated modes rather than a 'partitioning' structure. The typology is characterized by one very large group (Type I) and three small groups.

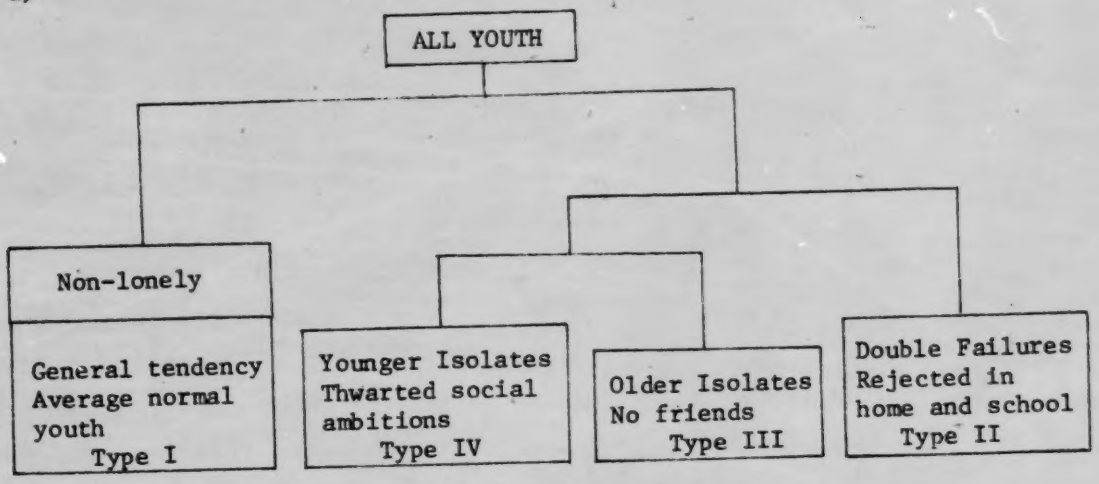
Examining the distance and cosine matrices, it can be seen that the one large type (i.e. Type I) lies in the opposite direction in the measurement space from the three smaller types. This indicates the separation of the measurement space into generally lonely and generally non-lonely. A second important structure to recognize is that Types II and IV are also more or less mirror images of each other within the loneliness section of the space. This second dimension appears to relate to a conventional versus unconventional or delinquent versus non-delinquent dimension. It is clear the small Type II is fairly highly orientated towards normlessness, drug abuse and so forth, whereas the small Type IV is highly conventional and has minimal levels of all anti-social activities. A tree diagram structure of the typology is on the following page.

The maximum radius scores indicate that as expected, the very large cluster I also has the maximum radius within the measurement space. The other three smaller clusters are characterized by much smaller radii. The central density measure indicates the portion of cases falling into the inner half of the mode. It can be seen in each case a fairly substantial proportion of the members fall within half of the radius of the cluster.

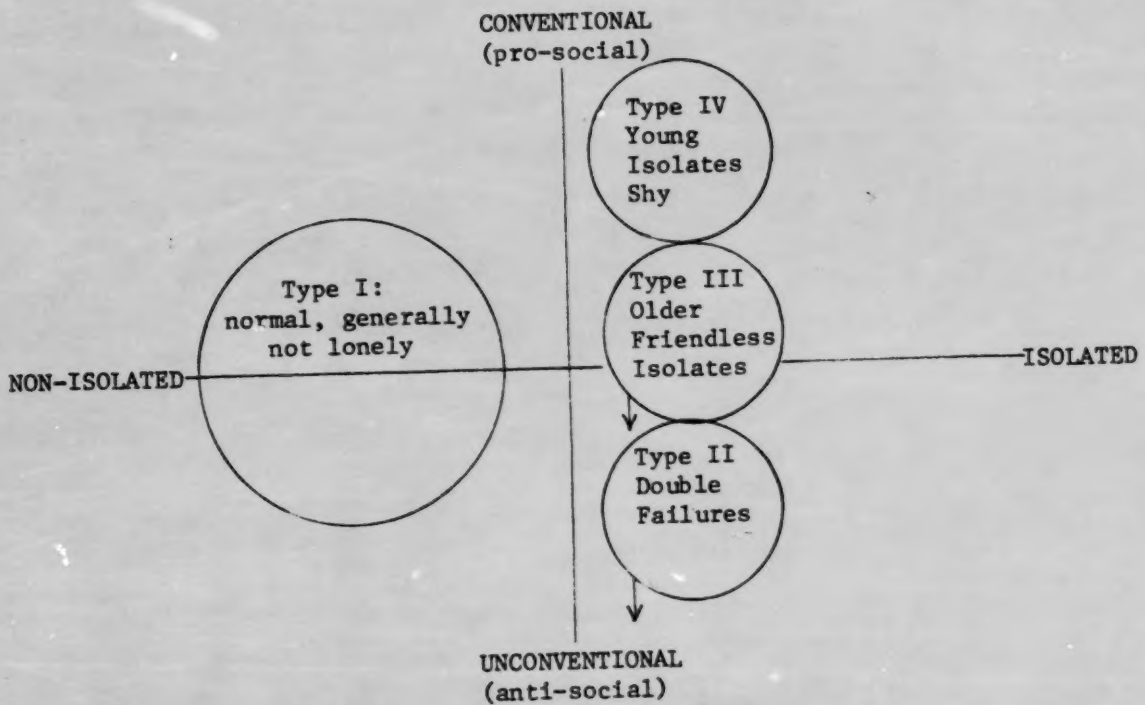
Figure 6.1

SCHEMATIC REPRESENTATIONS OF
COLORADO SAMPLE CLASSIFICATION OF YOUTH
ACCORDING TO FORMS OF LONELINESS

a)



b)



Reliability and Validity

Since this Colorado typology provided a natural mode solution, we only examined cross method reliability. A K-means solution gave essentially the same results as the initial mode solution. Secondly, the initial mode analysis was done on a subset of the total sample. When the total sample was further analyzed, once again the same solution appeared. Therefore, the four-mode solution was accepted. We have therefore examined both cross method and cross sample reliability.

To examine concurrent validity, we conducted extensive cross-classification of this typology against many of the external social and psychological variables. The results of these can be seen in Table 6.5. The results of these ANOVA analyses have been mentioned in the correlates of the four types. An examination of these correlates and of the ANOVA tables indicate many significant differences between the four types on these external variables. Katz et al. (1965) refer to this as concurrent or predictive validity of a typology. These cross classifications give extensive evidence of a concurrent validity of the present typology of forms of loneliness and non-loneliness amongst adolescents. The sense of these results is generally in directions which would be theoretically expected.

The major weakness of the present typology in terms of its validity clearly stems from the fact that there is only a partial coverage of the main dimensions of loneliness. The set of measurement variables which went into the construction of the typology (i.e. the indicators of loneliness) are simply not complete as a representation of the dimensions of loneliness. Thus this typology has only partial validity. This has already been alluded to in the earlier discussion of the measurement space.

OFFICE OF YOUTH DEVELOPMENT TYPOLOGY OF LONELINESS

This typology was based on the variables within the Office of Youth Development data which provide measures of loneliness. The sequence of analysis involved an initial examination to determine whether a natural modal structure existed. It was found with the modal analysis procedure that the distribution was relatively continuous with no clear boundaries between modes. Consequently, the next phase of the analysis involved

splitting of the sample into two halves and conducting separate Ward and K-means procedures applied to each half. The Ward procedure indicated that a K=5 level was optimal, giving groups of relatively lonely and non-lonely youth. The K-means procedures were then applied with different starting points. It was found that a highly replicable structure was found in the two separate samples. This was again recovered when different starting points were used in the K-means procedures (see Cormack, 1970; Everitt, 1975, and others).

This typological structure therefore conforms to a highly reliable partition rather than cleanly separated types. Five types were discovered, two being clearly non-lonely, one being somewhat lonely and two fairly lonely.

Measurement Space for the Office of Youth Development Typology

The measurement space which was used to create this typology of loneliness contained the following variables:

1) social isolation;
2) the feeling that teachers don't understand;
3) the feeling that parents do not spend enough time with the youth;
4) the feeling that parents are not interested in the youth;
5) the feeling that parents don't care about the youth;
6) emotional isolation scale;
7) meaninglessness scale;
8) aimlessness or normative confusion scale, and
9) self-reported loneliness.

The reader can note that again all causal or explanatory variables have been excluded from this data set. Thus the typology simply attempts to find whether patterns of loneliness exist. It is not attempting to explain loneliness.

This particular set of variables has higher coverage than the Colorado variables. It covers more of the major dimensions of loneliness which have appeared in the prior literature.

Profiles of Loneliness: Description of the Types

The following descriptions are based on tables 6.6/6.2. Following the initial description of the types in terms of the loneliness variables, we examine the social and psychological correlates of the types. These stem from tables 6.6, which are based on ANOVA between the typology and the external variables.

Types I and II: Non-lonely youth (19% and 18% of the sample, respectively)

a) Criterion Profiles: These youth are not lonely. They have low scores for social isolation, emotional isolation, meaninglessness and self-reported loneliness. In fact, the profile of scores on all of the variables indicates a general absence of feelings of loneliness. They feel reasonably well understood by teachers and that their parents are interested in them, care for them, and spend sufficient time with them. The only minor difference between the two types appears on the score for normative confusion and aimlessness. The profile of Type I indicates that these youth are fairly secure in their understanding of social norms whereas Type II appears to be relatively insecure.

b) Correlates of These Types: The ANOVA analyses indicate that these youth have the following characteristics: good access to education and occupation; high self-esteem; high access to recreation; low feelings of being discriminated against either for race or sex; low scores for perceived rudeness to teachers; positive labeling by parents and virtually no serious delinquency. Type I in particular is especially conventional in their behavior. They have the lowest scores for all of the delinquency items.

The groups are differentiated in minor ways. For instance, Type II is slightly more normless, has slightly lower access to education, and slightly lower access to occupation, and more of a tendency towards external control, marginally higher feelings of parental rejection, and more peer pressure towards delinquency. Type II is also less positively labeled by parents and teachers than Type I.

However, it is clear that both of these subtypes have extremely similar general profiles particularly on the criterion variables of

loneliness. The social-psychological correlates of the two also appear to be very similar in general. Together these groups account for a very large proportion of this sample.

Both of these groups are evenly split between boys and girls with a slight preponderance of boys in both groups. In terms of age, Type II is slightly older, with 42% being 16 or over whereas in Type I, only 28% are over 16. It might be noted that this typology suggests that minority youth are somewhat lonelier than Anglo youth. These two classes are both over 80% in terms of White membership whereas all of the other three classes (i.e. the lonely classes) have approximately 75% White membership. The Chi square for ethnicity versus the typology in fact is highly significant (p=.001). Similarly, the two non-lonely classes have somewhat higher proportions of the higher social classes than the three non-lonely groups. In this case, the Chi square is significantly at p=.04 with 20 degrees of freedom.

Type V: Slightly Emotional, but not Socially Isolated Youth (33% of the sample)

a) Criterion Profile: This large cluster consists of youth who have a somewhat above average score for the emotional isolation scale but do not appear to be socially isolated. Their score for emotional isolation is confirmed by their above average score for self-reported loneliness. The other elements of this particular group do not indicate a breakdown of relationships with teachers nor with parents. In both instances, there seems to be close to average or better relationship with parents and teachers. Similarly, these youth do not appear to be suffering from a feeling of meaninglessness.

b) Social-psychological Correlates of This Type: These youth do not indicate high levels of normlessness. They do, however, have a somewhat low level of self-esteem, feelings of powerlessness over peers, and a rather high (although not significant) feeling of powerlessness over parents. They have close to average scores for normative pressure, parental rejection, they do not feel discriminated against, and they have reasonably good access to recreation. They have average scores for

negative labeling by parents, negative labeling by teachers and close to average on the various delinquency indicators.

It is interesting to note that the two non-lonely groups have higher proportions of boys whereas the three lonely groups have higher proportions of girls. The present group has 55% girls. It is not characterized by any age tendency. In terms of ethnicity, it contains 21% Black as compared to a general sample average of 18%. There is a tendency for the youth in this cluster to be of somewhat lower social class than the non-lonely groups.

Type III: Social and Emotional Isolation with Meaninglessness (20% of the sample)

a) Criterion Profile: This type indicates all three major forms of loneliness. They have a high score for social isolation, moderate score for emotional isolation, and a high score for meaninglessness. The data also indicates that they have extreme estrangement from the school, although not from parents.

b) Social and Psychological Correlates of This Type: The ANOVAS indicate the following profile for this group: extremely high normlessness, relatively low self-esteem, higher than average tendency to be expelled, higher than average tendency to associate with delinquent peers, low access to recreation and a higher than average feeling of racial or sexual discrimination. They also have a higher than average tendency to be negatively labeled by teachers but, on the other hand, positively labeled by parents. In terms of delinquency, they are average or slightly above on all indicators of delinquency.

This group has a tendency to have somewhat more girls than average and to have very few cases in the under 13 age group. There is no clear social class or ethnic bias in this group.

Type IV: Seriously Lonely and Rejected Youth (10% of the sample)

a) Criterion Profile: This group appears to be a more extreme version of Type III. They have an extremely high score for social isolation, emotional isolation, rejection by parents, and rejection by teachers. Additionally, they are well above average on meaninglessness, normative confusion, and self-reported loneliness.

b) Social and Psychological Correlates: The Social and psychological correlates of this type paint a dismal picture of these youth. They have a significantly low score for access to education, access to occupation, self-esteem, and they have higher than average feelings of powerlessness over parents and of pessimism. They show more of a tendency towards external control than any of the other types (significantly so). They have the highest score for being physically hurt by parents, parental rejection, hanging around with a delinquent peer group and feelings of racial or sexual discrimination. Additionally, they have lower than average scores for access to recreation, for being perceived as rude by parents and by teachers, negative labeling by parents and by teachers. In terms of delinquent behavior, they show a significantly high tendency to commit delinquent acts characterized by normlessness, e.g. drug abuse and so forth. They have significantly high scores on drug abuse or normless delinquency.

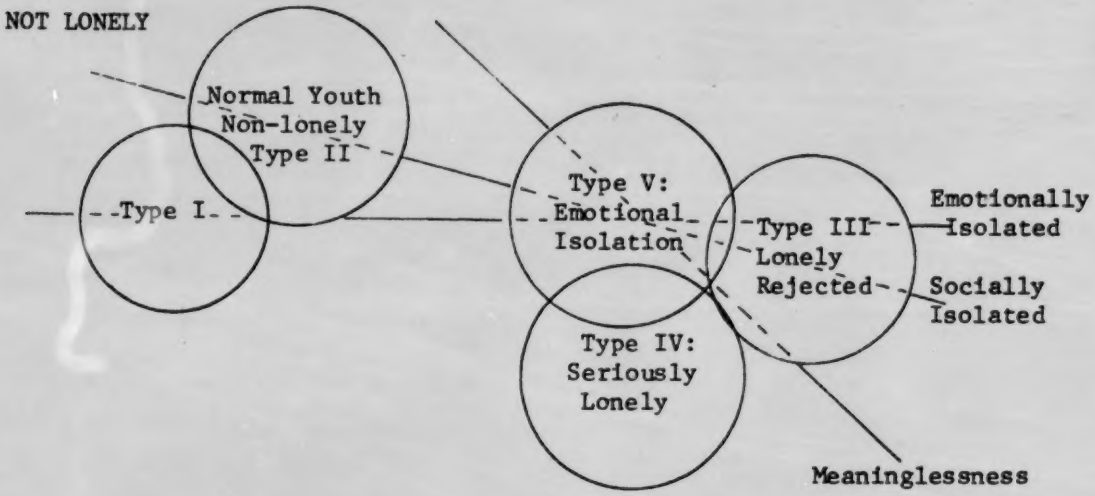
Structural Aspects of This Typology

A most important structural aspect of this typology is the fact that it conforms to a partition structure rather than well separated modal types. The initial analysis with Huizinga's modal procedure indicated the general absence of well separated types. The Ward and K-means procedures, however, indicated that a replicable structure conforming to a partition could be recovered from the data set. Since we are dealing here with a partition, it is important to understand the relative densities in different parts of the data space. Probably the most important features to indicate relative density are the central density coefficients (see Table 6.2). These central density coefficients indicate that a very high proportion of the points that have been clustered fall into half of the radius surrounding the centroid of each type. For instance, 74% of Cluster 1 and 63% of Cluster 5 fall within half of a radius surrounding the centroids of these respective types. These proportions are high, indicating that there is a fairly clear variation in the point density across the measurement space. Thus although we do not have well separated types with clear boundaries, we do have substantial variation in the density of points across the measurement space.

The cosine and distances matrices between centroids give a reasonably good understanding of the distribution of these classes in the measurement space. There is a fairly high positive cosine between Types I and II and concurrently a relatively small distance between their centroids. This indicates that these two classes are close to each other in the generally non-lonely region of the space (the schematic diagram below gives an indication of these positions). Types III, IV, and V are located in the more lonely section of the space. Type V in particular seems to be somewhat intermediate, whereas III and more particularly IV suffer from progressively larger amounts of loneliness. Type IV in fact seems to be a particularly extreme group in terms of the generally widespread nature of the indicators of loneliness for these youth. The reader should note that the circles representing these types are overlapping, indicating the fact that the boundaries of each type phase into one another. Utilizing the central density coefficients, it is clear that in terms of tightness of the distributions, Types I and V are somewhat more dense than Types II and III, while Type IV is relatively diffuse.

Figure 6.2

SCHEMATIC OUTLINE OF OYD LONELINESS TAXONOMY ON THREE DIMENSIONS: SOCIAL ISOLATION, EMOTIONAL ISOLATION AND MEANINGLESSNESS



Reliability and Validity of This Typology

The first approach to reliability utilized the split sample procedure. The sample was split into two and separate analyses conducted on the two halves with both K-means and Ward. It was found that basically the same structures appeared in the two separate samples. Tables indicate a comparison between the centroids of two separate solutions which emerged from separate K-means analysis of the total sample. It can be seen that the five clusters were replicated almost exactly by the two separate analyses. The small distances and the very small cosines which exist between certain centroids indicate that these centroids have been replicated in the two separate analyses.

Additionally, we applied a discriminant analysis, attempting to allocate cases to class memberships on the basis of linear discriminant functions. It was found that 75% of the cases were correctly classified by the discriminant functions. While this is not a test of reliability per se, it does indicate the power of a different mathematical procedure to correctly identify group memberships. To the extent that a very high proportion of correct allocation is made, we can have confidence that we are dealing with a replicable structure. The error rates are quite interesting. For instance, 11% of Type I was allocated to Type II thereby indicating the relative overlap between these two. Type III was particularly difficult to classify with some of Type III being classified into Types I and II and V. Types IV and V on the other hand were fairly readily allocated to their correct class, with 89% and 78% correct classifications respectively.

The validity of this typology as a representation of adolescent loneliness is dependent partially upon the validity of the domain of measurement variables. Here we refer to the content validity of the measurement space. Since both social isolation, emotional isolation, and meaninglessness were entered into the measurement space, it may be argued that this is fairly good measurement space in terms of content validity. It gives the analysis the opportunity to identify patterns of loneliness according to the major theoretical variables which have emerged from the prior literature.

A second aspect of validity is the degree to which types can be separated on variables which are external to the analysis, i.e. can these types predict or are they predicted by external social and psychological variables which are theoretically related forms of loneliness. The ANOVA analysis (see Tables 6.6) have indicated that a great many significant associations have been found. For example, significant differences between the types were found for the following:

1) access to occupational roles;
2) self-esteem;
3) pessimism;
4) internal-external control;
5) access to recreation;
6) racial and sexual discrimination;
7) perceived rudeness by parents;
8) negative labeling by parents;
9) delinquent behaviors, and
10) sex, age and ethnic distributions.

Some of these relationships have been mentioned in the prior literature as either being theoretical causes or results of loneliness, e.g. self-esteem, social skills, etc. The general conclusion of this set of significant findings is that the typology does in fact have a number of valid, predictive relationships.

SAN DIEGO SAMPLE TAXONOMY OF LONELINESS

The sequence of analysis involved an initial examination of the data with a mode seeking procedure. The mode seeking procedure indicated no clear cut modes. A sequence of Ward's procedure, K-means procedure, and an evaluation of K-means were then applied. Split sample analysis was used so that cross sample reliability could be examined. It was found again that the 5 level provided a stable and replicable solution both cross method and cross sample. The typology was additionally tested for validity by means of a series of ANOVAS against a large battery of external, social and psychological variables. Finally, the typology was

tested for additional evidence of replicability by means of a discriminant analysis to test whether type membership could be recovered utilizing discriminant functions. It should again be reiterated that the present typology is purely aimed to uncover forms or patterns of loneliness and does not attempt to explain loneliness. It is based purely on loneliness criterion variables and does not include any social or psychological predictor or causal variables in its construction.

Measurement Space for the Present Typology

The variables entering into this taxonomic analysis provide a reasonably good coverage of the various forms of loneliness. The variable set includes the following:

1) neighborhood social involvement;
2) dating frequency;
3) social participation scale;
4) school participation scale;
5) going steady;
6) poor home life;
7) emotional isolation scale;
8) peer emotional closeness scale;
9) measure of unhappiness;
10) absence of self-pity, and
11) feelings of restlessness, anxiety and blues.

This above set of variables includes social and emotional isolation and in this sense provides a reasonable coverage (or content validity) for this domain of interest. There are deficits, however. The most important deficit is the absence of a clear indication of the problem of meaninglessness. This particular data set did not have any explicit measurement of meaninglessness or of identity confusion.

Profiles of Loneliness: Descriptions of the Types

In the following section we present brief descriptions of the types based on the tables in Appendix 6 . This typology indicates that two non-lonely types were established, one moderately lonely, and two more seriously lonely types. In the following descriptions, the first paragraph covers the profile of the types purely in terms of the loneliness variables,

and the second describes the types of terms of the social and pyschological correlates which were found for each type. We will initially deal with the non-lonely types and then with the lonely types.

Type IV: Non-lonely, well adjusted youth (13.4% of the sample)

a) Criterion Profile: They are characterized by the following: High general social participation, high school participation, an absence of emotional isolation, a reasonably good home life, high neighborhood social participation, an absence of unhappiness, and an absence of self-pity.

b) Social and Psychological Correlates: The school situation of these youth appears optimistic. They have strong feelings that they will go far in school. Their teachers do not perceive them as problem children. In fact, they have significantly high scores for teacher social adjustment ratings, and a low score for school normlessness. These youth have significant low scores for running away, home normlessness, home failure, and low isolation scores between their parents and their friends. This suggests a reasonable integration between home life and peer relationships.

In terms of personal and attitudinal variables, these youth also seem to be outgoing and positive. They show the least tendency towards social paranoia in terms of the feeling of not 'trusting anyone'. They have a high score for regarding friends and social life as highly important. They have a tendency not to be shy in terms of public self-consciousness nor to be shy in face-to-face situations, although neither of these reaches significant levels. They do not find it 'easy' to drop friends. They are additionally characterized by the following: an absence of social risk taking or impetuosity (although not significant); tendencies to have high value for social involvement; a tendency towards social conventionality; low normlessness; non-alienation; non-societal estrangement (not significant), and an absence of negative attitudes towards school. Finally (although there is a large amount of missing data), the ANOVA indicates that these youth have relatively high self-esteem and a low score for cynicism. They have significantly low scores for being susceptible to

the influence of their peers to drink. In terms of anti-social or delinquent behavior, they have relatively low scores for running away, using alcohol and theft.

This type contains a large number of girls (62%) and a higher than average number of youth from the higher social classes.

Type I: Normal Youth - Slight Emotional Isolation with Good Peer Relations (28% of the sample)

a) Criterion Profile: This profile presents a mixture of indicators of loneliness. The youth are highly social and they participate to a large extent in social occasions. They date fairly frequently and have a fairly high score for going steady. Additionally, they have the highest score for peer emotional closeness and appear to be relatively happy in their self ratings. Paradoxically, they have a fairly high score for restlessness and blues. This type has the joint highest scores for dating and for going steady. This may relate to the anxiety and blues. One feature which stands out in their profile is that they have relatively poor home life. A slight amount of emotional isolation characterizes these youth.

b) The Social and Psychological Correlates: These do not add much to the above pattern of indicators. Most of the scores are near average. For example, the scores in regard to school relationships are not significantly distinguished from the other groups. There are some indications of a relatively poor home life. They have an average score for the home failure scale and for isolation of parents from friends. However, they do have a significantly high score for home normlessness. This clearly distinguishes this class from the other two non-lonely types, i.e. II and IV.

In terms of personal variables, there are again few distinguishing traits. They have average scores for: social paranoia; easiness of dropping friends; social risk-taking or impetuosity; value for social involvement; conventionality, normlessness; alienation; social estrangement; self-esteem, and socio-political cynicism.

They are also close to average in terms of the distribution amongst boys and girls and across the social classes.

Type II: Normal Youth - Relatively Isolated From Peers (22% of the sample)

a) Criterion Profile: This type is average on many dimensions. They have average levels of social participation, school social involvement, going steady, feelings of anxiety. They do not indicate any serious unhappiness and they seem to have good relationships with their parents. An atypical score for this type is an absence of peer emotional closeness. There is no tendency towards self-pity.

b) Social and Psychological Correlates: Although not significant, these youth have the highest score of all the types for finding it 'easy to drop a friend' and the feeling that people talk about them behind their backs. They have a low score for valuing social involvement. They appear to be fairly conventional, with low scores for normlessness and alienation. They do not have negative attitudes towards school and have average scores for teacher social adjustment rating and school normlessness.

Type V: Emotional and Socially Isolated Youth (20% of the sample)

a) Criterion Profile: The profile of these youth indicates a fairly high level of loneliness. They have above average scores for emotional isolation and below average scores for social participation, neighborhood social participation, school social participation, going steady, and a poor score for the quality of home life.

b) Social and Psychological Correlates: These youth are characterized by the following school situation: extreme negative attitudes toward school; low expectations for school success; a very low teacher social adjustment rating, and are perceived by teachers as being 'problem children' (this latter does not quite reach significance).

The home situation of this type is as follows: isolation of parents from friends; home normlessness; home failure, and high scores for running away.

In terms of personal attitudes and characteristics, these youth have the following features: low value for social involvement; a high score for unconventionality; normlessness; and low self-esteem. They also have the following tendencies: the belief that success stems from coming from

the right family; the feeling that it's better not to trust anyone; shyness in face-to-face situations; normlessness; alienation; social estrangement; low expectations in school, and low self-esteem.

Type III: Lonely and Unhappy Youth (10.3% of the sample)

a) Criterion Profile: These youth have low levels of: neighborhood social involvement; general social participation; school social participation; and dating frequency. They have high scores for poor home life, emotional isolation, and an extremely high score for unhappiness coupled with strong feelings of self-pity.

b) Social and Psychological Correlates: In the family, these youth are characterized by the isolation of parents from friends, home failure, home normlessness, and a higher than average tendency to run away. In school, they experience: negative attitudes towards school; low expectations for school success; low ratings for teacher social adjustment, and a tendency (although not significant) towards school normlessness.

Their personal traits and attitudes are as follows: the feeling that it is 'better not to trust anyone'; a tendency towards inter-personal shyness, and shyness in front of a crowd. They value social involvement but at the same time exhibit low self-esteem. They are significantly normless, alienated, and seem to be easily influenced by their peers to drink alcohol.

Structural Aspects of This Typology

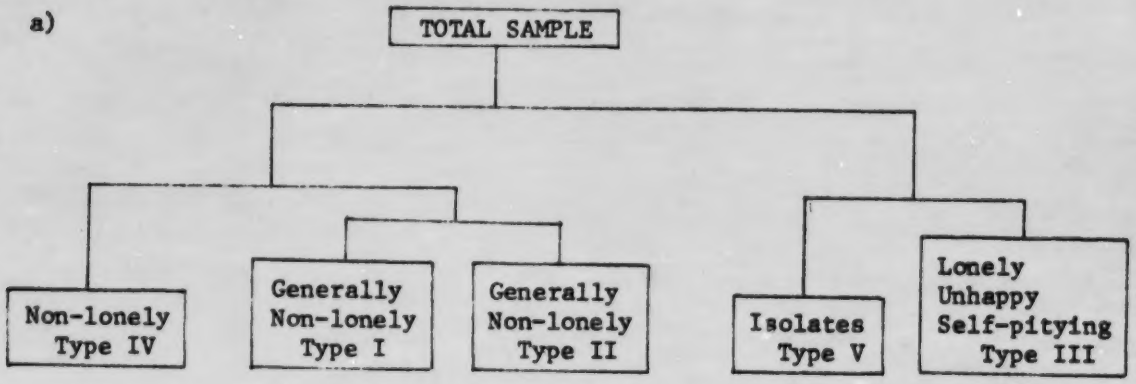
This classification system is a partition rather than a series of well separated modes. The stability of the K-means procedure, however, both in cross-sample and cross-method analyses indicated that it is stable with fairly large gradations in density. The central regions of each class within the partitions are of greater density than the peripheral regions according to the central density coefficients (Appendix 6).

The cosine and distance matrices (see Appendix 6) indicate the following structure:

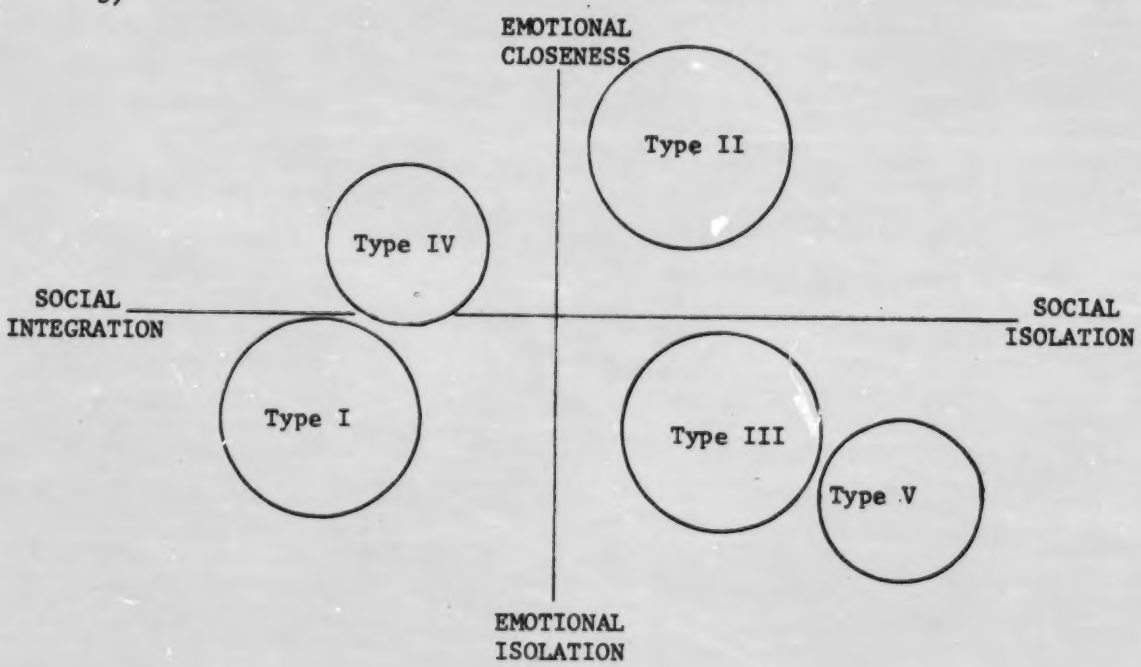
Figure 6.3

SCHEMATIC DIAGRAM FOR SAN DIEGO SAMPLE
TAXONOMIC SYSTEM OF LONELINESS

a)



b)



These schematic diagrams indicate the relative non-loneliness of Types IV, II and I and the relative loneliness and isolation and unhappiness of Types III and V. Type IV has positive cosines with both Types I and II, thus indicating a general similarity. These three clusters are therefore regarded as being placed within the general non-lonely region of this measurement space. Types III and V have fairly large negative cosines with Type IV, thus indicating that they lie in the generally opposite direction of the hyperspace, i.e. the loneliness direction. Types III and V in fact have negative cosines with all of the three non-lonely types. This indicates the general placement of these two sets of types in the opposite direction in this measurement space. It should be remembered, however, that we are here dealing with a partition and all of these types should be regarded as phasing into each other with no clear discontinuities.

Reliability and Validity

Following the failure of the mode analysis to establish clear types, Ward's method (Ward, 1963) and a K-means analysis were used. Additionally, split sample procedures were used to examine whether the same solutions appeared in two separate subsamples of the data set. Finally, a discriminant analysis was run to establish whether the type structures could be correctly identified by means of discriminant functions. Table 6.3f indicates the results of two separate K-means analyses. It can be seen that the solutions have been almost exactly replicated in the two separate analyses. Each of the five type centroids has been replicated both according to distances between the centroids and cosines between the centroids. This analysis gives evidence of a high level of cross-method replication. Using the discriminant analysis, it was found that 76% of the cases could be correctly classified into their types. Although this is not a test of reliability per se, it does indicate the relative strength of the present structure.

Two aspects of validity are examined: first, the content validity of the measurement space, and secondly, the predictive validity of the types regarding their associations to variables theoretically relevant to

loneliness. Firstly, the content validity of the measurement space suffers from the lack of measures of meaninglessness and ego or identity confusion. In other respects this seems to be a fair representation of the domain of loneliness. It includes indicators of both social and emotional isolation. Tables 6.7 in Appendix 7 indicate the ANOVAS between a large battery of social and psychological variables against this typological structure. The large number of significant differences between the types indicates the relative power of these variables in differentiating between the classes. Significant differentiations were found for variables such as:

1) value for social involvement;
2) unconventionality;
3) normlessness;
4) general alienation;
5) negative attitudes toward school;
6) expectations of school success;
7) self-esteem;
8) socio-political cynicism;
9) number of persons in the home;
10) frequency of move or transience;
11) isolation of parents from friends;
12) home failure;
13) peer influence towards drugs;
14) teacher social adjustment rating, and
15) home normlessness.

Many of the associations established in the above set of analyses fit with prior theoretical expectations and with the findings of other researchers.

INDIANA SAMPLE TAXONOMY OF LONELINESS

This section deals with the Indiana Sample Taxonomy of Youth in terms of loneliness variables and indicators. The analytical sequence involved an initial mode examination search (which failed), followed by Ward and K-means analysis upon two separate subsamples of the overall data set.

The Ward indicated that K=5 level was appropriate. Analysis of the different subsamples then provided again a highly replicable solution. The typology was again validated by a series of one-way ANOVAS against a large battery of external, social and pyschological variables. Finally, a discriminant analysis was used in recovering group membership according to linear discriminant functions based on the input from loneliness variables.

This again is a typological system which is based purely upon loneliness indicators and variables. It does not attempt to explain loneliness and is regarded as a mapping of adolescents within the general domain of different aspects of loneliness.

Measurement Space for This Analysis

The measurement space used as input to the taxonomic analysis included the following variables:

1) number of clubs joined;
2) whether the youth feels that peers regulate their behavior;
3) the feeling that there is no one who would help out in times of trouble;
4) low social isolation;
5) low expectations of being liked;
6) the feeling that friends understand how the youth feels;
7) expectation scale for love and affection;
8) family support;
9) school support;
10) peer support;
11) low emotional isolation scale;
12) meaningfulness scale;
13) loneliness as a disjunction;
14) would the youth go to parents in time of trouble;
15) would the youth go to peers in time of trouble.

This set of variables has a fairly good coverage of certain aspects of loneliness. For example, social isolation is directly measured as a reasonably reliable scale. Emotional isolation and meaninglessness and

loneliness as a disjunction are measured scales. Many of the other variables are item-indicators of different aspects of loneliness. At the theoretical level, therefore, this battery of variables is reasonable in content validity. It should allow further clarification of the relationships between different formulations of loneliness.

Profiles of Loneliness: Description of the Types

This particular analysis again differentiates lonely from non-lonely types of youth. Types I and III are relatively non-lonely; Type V is intermediate and Types II and particularly IV are seriously lonely. The second paragraph examines the social and psychological correlates of these types.

Type I: Non-lonely Youth (15% of the sample)

a) Criterion Profile: These youth are not socially isolated. They belong to a number of clubs and have fairly good peer relationships. They expect love and affection and receive good support within the family and the school. The disjunction score indicates an absence of serious stress between expectations for relationships and value for relationships.

b) Social and Psychological Correlates: The ANOVA analyses provide a fairly interesting set of findings regarding this type. The youth are characterized by the following: an average or high value for academic recognition; an average or high expectation for academic recognition, and an above average indication that teachers do not make them uncomfortable.

At the personal level these youth exhibit internal control, an average tendency towards altruism, powerlessness, strength of identity, and a somewhat above average tendency towards personal autonomy in time structuring. Their parents encourage them to be 'well-liked' and to 'do as they want'. This latter may be interpreted as support for independence.

In terms of delinquent behavior, these youth are characterized by the following: a tendency to use fake ID's, drugs, and a clear absence of vandalism or other attention-getting offenses.

It is interesting to note that this group has a relatively high preponderance of girls and an orientation towards older youth in the 16+ age bracket. This may explain the relatively high number of instances of drug use.

Type III: Non-lonely Youth (21% of the sample)

a) Criterion Profile: These youth have an extremely non-lonely profile. They have a high expectation of being liked, low levels of social and emotional isolation, and low levels of meaninglessness. Their disjunction score is also extremely low, again suggesting an absence of loneliness. They feel that other persons would help them out if they were in trouble, and they have a high expectation for love and affection. They also report strong feelings of support within the family, school and peer contacts.

b) Social and Psychological Correlates: These youth show an orientation towards internal control. At the personal level, the youth are characterized by:

1) a sense (significant) that others will have a high opinion of them;
2) high value for academic recognition;
3) high expectation of academic recognition;
4) altruism;
5) personal power;
6) the highest score for personal identity,
7) and the highest score for time structuring.

All of the above are significant at beyond the .05 level. Additionally, their parents encourage them to do as they want, their teachers do not seem to make them feel uncomfortable, and their parents encourage them to be well-liked. Their school situation appears to be good. They have the highest score for school expectations, for pressure towards academic success, and values and expectations for academic recognition. They have the lowest score for perceiving their parents as strict.

In terms of delinquent behavior, these youth have simply not committed any offenses.

Type V: Moderate Social Isolation and Meaninglessness (20% of the sample)

a) Criterion Profile: These youth are characterized by a moderate amount of social isolation and meaninglessness. They tend not to be members of clubs. Yet, at the same time, they have a strong feeling that their peers support them. In times of trouble, they feel they could turn to their peers. Parental relationships appear to be poor. Their moderate social isolation is counterbalanced by an absence of emotional isolation. This perhaps relates to the strength of some other relationship - probably with a small number of peers.

b) Social and Psychological Correlates: These youth have a relatively low value and expectation for academic recognition. They seem to be uncomfortable in the presence of teachers, and to have only moderate or low school expectations.

In terms of personal variables, these youth are characterized by the following: an orientation to external control, a feeling that it is unimportant to their parents whether they are well-liked or independent, uncertainty as to whether others have a high opinion of them, and moderate identity confusion. However, they feel that it is important to their friends that they be well-liked. They exhibit a strong orientation towards autonomous time structuring. They are second only to the non-lonely Type III. These youth have relatively fewer siblings at home than all of the other types.

A very large proportion (65%) of these youth are girls, many of whom fall into the older age brackets. A final important feature of this type is that many of the members fall into the two top social classes.

Type II: Isolated from Peers and Somewhat Lonely (24% of the sample)

a) Criterion Profile: These youth are not joiners of clubs, they feel that friends do not regulate their behavior, that others will not help them out, and they have an above average score for the expectation of not being liked. They indicate that their friends do not know how they feel and they have low expectations for being liked. A fairly strong score indicates an absence of peer support, and a tendency not to go to peers

if they are in trouble. On the other hand, they do not appear to suffer from a sense of meaninglessness.

b) Social and Psychological Correlates: The correlates of this type confirm the above loneliness pattern. They have the following characteristics: low expectation and value for academic success. They do not seem to have a particularly good school experience.

At the personal level, they are characterized by: relatively low altruism; powerlessness; a relatively low score for autonomous time structuring, although at the same time they appear to have a fairly firm sense of identity. They have very low family expectations; their parents have an average strictness, and they experience relatively low pressure towards success. This group has tendencies towards theft, drug use and gambling. They have a somewhat higher than average score for many of the other delinquent offenses.

Type IV: Seriously Lonely Youth (20% of the sample)

a) Criterion Profile: This group of youth appears to be the most seriously lonely group in this typology. They have extreme scores for social isolation, low expectation for love and affection, emotional isolation, meaninglessness, loneliness as a disjunction, a feeling that others won't help them out, and an absence of support in the family, school or amongst peers.

b) Social and Psychological Correlates: These correlates also confirm the loneliness of these youth. They are characterized by: external control; the feeling that others will not have a high opinion of them; low scores for value of academic recognition; low expectation for academic recognition; low score for altruism; weak identity; passive time structuring; powerlessness or pessimism; discomfort in the presence of teachers, and low parental expectations for success.

This group shows an average orientation towards delinquent behavior. Additionally, they show no distinguishing features regarding age, sex, or social class.

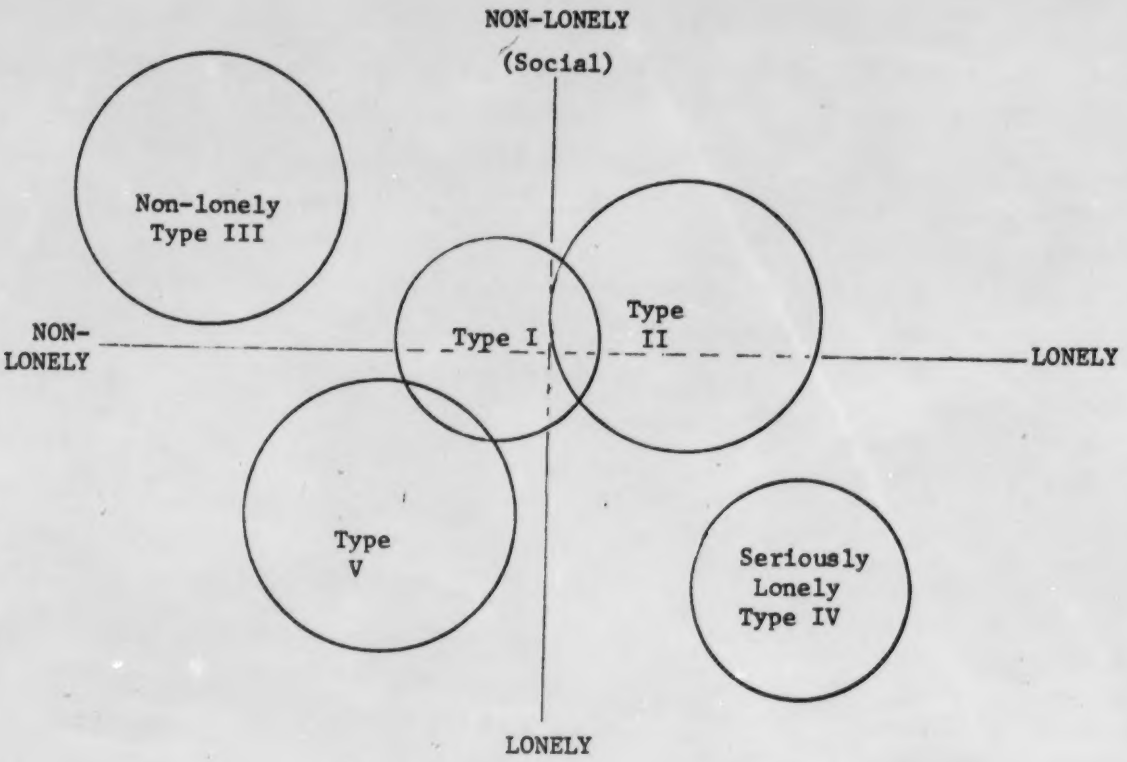
Structural Aspects of the Typology

The central density coefficients indicate that Types I and IV have the most clear differentiation between density at the center and at the periphery.

Type V appears to be relatively diffuse in terms of spread of points. The structure of the typology is that non-lonely Types I and III are located in one region of the space. Types I and III have a cosine of .40 and are therefore relatively close to each other in terms of the shape of their profiles. Type V appears to be intermediate in position, having a weaker cosine in the opposite direction and smaller distance than Type IV to the non-lonely groups. Types II and IV have a positive cosine between their centroids and therefore have a somewhat more similar orientation to each other. It should be noted that Types III and IV are almost opposites of each other (cosine = -.91).

Figure 6.4

SCHEMATIC DIAGRAM OF INDIANA TAXONOMY OF ADOLESCENTS IN TERMS OF SOCIAL AND EMOTIONAL ISOLATION



The above diagram omits a number of dimensions of loneliness, i.e. it omits loneliness as a disjunction, meaninglessness, and other variables such as family, school and peer support, etc. The extensive overlaps between Types I, II and V would become less marked if these additional dimensions were taken into account. The actual separation of Types I and II, for instance, is relatively minor in terms of the errors of misclassification when the discriminant function analysis was used to identify youth in these classes. There were, for example, only 2% of cases of Type II erroneously classified into Type I. There were slightly larger numbers of misclassifications between Types II and V. For example, 9% of Type II was erroneously classified into Type V, while 4% of Type V were erroneously classified into Type II. These misclassification rates are extremely small. This discriminant function analysis tends to support the separations which have been made between these three types.

Reliability and Validity of This Typology

The partition structure emerging from the analysis of the Indiana Sample appears to have a high level of cross method reliability. The two K-means solutions are compared in Table 6.4f. It can be seen that four of the five clusters are replicated almost exactly with extremely high cosines and small distances between them. The fifth of these classes does not replicate particularly well with a cosine of .50 and a distance of 2.43. Additionally, both Ward's and the K-means clustering procedure give highly similar results (although we do not present a comparison in this instance).

A second approach to establishing the reliability of the taxonomic structure again utilized discriminant functions to examine whether such functions could correctly classify the sample cases into the five types. Table 6.4e indicates that 85% of the sample was correctly classified into the five classes using discriminant functions based on the input loneliness variables. The chi square for this discriminant analysis was significantly at beyond the .001 level. This analysis also suggests that there is a fairly reliable structure which can be identified by different analytical procedures. The approach to validating this class partitioning structure

again utilized cross classification against variables which are theoretically relevant to the general concept of loneliness. The ANOVAS presented in Appendix 6 demonstrate that a large number of significant differences were established between the types. The existence of these significant differences is taken to be an indication of the fact that these types are validly different from each other in terms of their particular syndromes of loneliness. Significant differences were found for the following variables by the ANOVA analysis:

1) the belief that others do not have a high opinion of you;
2) value for academic recognition;
3) expectation for academic recognition;
4) internal-external control;
5) altruism;
6) powerlessness;
7) strength of identity;
8) time structuring;
9) the feeling that it is important to your friends that you be liked;
10) the feeling that parents encourage you to do as you want;
11) family expectations;
12) school expectations;
13) peer expectations;
14) pressure towards success;
15) gambling;
16) theft offenses;
17) drug offenses, vandalism (marginally - beyond the .10 level);
18) attention-getting offenses (beyond the .10 level).

SUMMARY

Our purpose in this chapter is to examine the multi-dimensional distribution of our samples within a measurement domain of loneliness. We attempted to examine the pattern-structures using multivariate type-seeking methods of cluster analysis. Meaningful taxonomies of youth were developed for ALL four samples. Each taxonomy contains both non-lonely and lonely youth types. Reliability was established by split-half analysis and by cross-method analysis. The type structures were remarkably robust under these various tests. Validity was examined by cross-classifying the types against external variables which are theoretically implicated in causing loneliness. A very large number of significant associations was found between these variables and each of the four taxonomic systems.

The highly lonely types from each of the taxonomic systems and their related social and psychological characteristics are particularly important as 'descriptive' pre-cursors to the development of new theory regarding adolescent loneliness. It is also instructive to examine the social psychological characteristics of the non-lonely types. The contrasts between these types reach high significance levels (beyond p=.01) on many of the social psychological variables. The lonely types from each of the analyses were characterized by high scores for social and emotional isolation, meaninglessness and boredom, isolation from teachers, and so on. The external correlates indicated: low self-esteem; external control; feelings of powerlessness in both peer and family contexts; low perceived access to a variety of social roles; feelings of being discriminated against and of being stigmatized, and clear tendencies towards anti-social behavior such as drug and alcohol use, etc. The exact descriptors for each of the four taxonomies are somewhat different, although the general structure and theoretical implications of these taxonomies are remarkably similar. The non-lonely types are characterized by: high self-esteem; internal control; a sense of personal power; good entry into social roles; good relations with parents and teachers; strong sense of personal identity, and so on. Statistical evidence for the reliability and validity of each of these taxonomies is presented.

CHAPTER 7

SOCIAL AND PSYCHOLOGICAL CORRELATES OF ADOLESCENT LONELINESS

INTRODUCTION

In this chapter we examine the correlations between the various forms of loneliness (i.e. general loneliness, social isolation, emotional isolation, meaning and identity problems, etc.) and sets of variables which are theoretically related to loneliness. These variables include:

1) Personality, attitudes and beliefs;
2) Peer environment and experiences;
3) Family environment and experiences;
4) School environment and experiences;
5) Situational factors;
6) Delinquent and anti-social behaviors.

Correlation matrices have been computed between all of these variables and the different indicators of loneliness. Additionally, the same correlation matrices have been computed for both boys and girls, and for three age groups - 10-12, 14 and 15, and 16+.

PERSONALITY, ATTITUDES AND BELIEFS IN RELATION TO LONELINESS

Internal-External Control, Powerlessness, Pessimism

The Internal-External control variable within the Swanson and Mobley sample is significantly related to loneliness. External control is associated with loneliness. The I-E variable (hi=internal) correlates .23 with general non-loneliness, .23 with social integration, .26 with meaningfulness; it correlates negatively with feelings of pessimism regarding social popularity, and with loneliness as a disjunction. In both cases, the negative correlations are -.18. The above pattern of correlations was for girls (N=286). In the analysis of the boys sample (N=271), essentially the same pattern of correlations was found, the correlations being r=.26 for general belongingness and .31 with meaningfulness. In the OYD sample the same results were found for the

I-E variable. In each case, external control correlates clearly with loneliness while internal control was associated with non-loneliness. The pattern of correlations in the OYD sample was more pronounced than in the Swanson and Mobley sample. Similar correlations were found across all of the age ranges and for both boys and girls. For both boys and girls, external control correlates .29 with self-reported loneliness, .30 with social isolation and .37 with emotional isolation. I-E also correlated positively with shyness and aimlessness.

The present data sets also contain a variety of measures of powerlessness. Both general powerlessness and powerlessness within specific contexts have been correlated with the various indicators of loneliness. The Indiana data confirms a relationship between powerlessness and the various forms of loneliness. In the sample of girls (N=286) powerlessness correlates -.24, -.20 with general non-loneliness and social integration. It correlates .41 with pessimism regarding social popularity, and .18 with loneliness as a disjunction. It similarly correlates with meaningfulness (-.29) and with emotional belongingness (-.21). This pattern of correlations is repeated amongst the boys sample (N=271). In this instance, the relationships are again even stronger, e.g. with general non-loneliness (-.39), social integration (-.35), pessimism regarding popularity (.51), emotional belongingness (-.32), meaningfulness (-.30). In the three age ranges, the same pattern of relationships is repeated. In the OYD data, two aspects of powerlessness have been measured, ie. powerlessness over peers, and powerlessness over parents. They both correlate .24 with self-reported loneliness in the girls sample (N=552). They also correlate significantly positively with social and emotional isolation. In the case of the girls sample, powerlessness over parents correlates .39 with emotional isolation. The same pattern is repeated across the three age ranges. For example, in the under 13 age bracket, powerlessness over parents correlates with: self-reported loneliness (.26), social isolation (.32), emotional isolation (.41) and meaninglessness (.27) and normative confusion (.36).

The measure of pessimism in the OYD sample also has high correlations with the various aspects of loneliness, e.g. with self-reported loneliness (.38), social isolation (.40), shyness (.36), emotional isolation (.48) and normative confusion (.46). These results are for the sample of males (N=527), with virtually identical results for the sample of females.

Normlessness and Normative Confusion

Normlessness correlates with a number of the indicators of loneliness to a reasonably high level in the OYD samples. For example, with the sample of girls, it correlates with: social isolation (.23); boredom (.17), and emotional isolation (.21). And in the sample of boys it correlates with social isolation (.31), emotional isolation (.22), meaninglessness (.23) and normative confusion (.17). This pattern is repeated across the three age ranges. Turning to actual delinquent offenses which reflect normlessness (e.g. fake excuse to teachers, run away, truancy) positive correlations are again found with aspects of loneliness. Amongst the sample of females, the delinquency offenses reflecting normlessness correlate weakly with social isolation (.19), boredom (.22), meaninglessness (.21). While in the sample of boys, a similar set of correlations was found, e.g. social isolation (.21), meaninglessness (.20) and emotional isolation (.16).

In the San Diego data, home normlessness and school normlessness have been measured. Home normlessness correlates with emotional isolation (.26) for the sample of males and (.28) for the sample of females. It is interesting to note that home normlessness correlates with unhappiness amongst the girls (.31) and amongst the boys (.28). Home normlessness is also related to self-pity at a high level, (.38) for the males and (.44) for the females. School normlessness seems to have no relationship to the various indicators of loneliness.

Values, Aspirations and Expectations

In the Swanson and Mobley data set, both value (desires) and expectations for academic recognition have been measured. It is found that

across all of the various indicators of loneliness, there are virtually no substantial correlations between value for academic recognition and loneliness. This is true for both boys and girls, and also largely across the three age groups. Only in the case of the under 13 group is there a relationship found between value for academic recognition and any of the indicators of loneliness. In this instance, the value for academic recognition correlates with meaningfulness (.21) and loneliness as a disjunction (-.27). Both of these would be in the expected theoretical directions.

The expectation for academic success, however, provides a completely different picture. In this case, very strong correlations are consistently found for the two sexes and for the three age groups with the various indicators of loneliness. Since there are only minimal differences between the patterns of correlations, we provide the correlations here for the sample of girls (N=286). Expectations for academic recognition correlates with: general non-loneliness (.21), social integration (.23), pessimism regarding social popularity (-.26), meaningfulness (.24) and loneliness as a disjunction (-.40). The expectations variable is based on a high level of confidence and relatively high feelings of personal success. The size of these correlations probably indicates that loneliness is inversely related to general feelings of optimism.

In the Colorado data set, educational aspirations, occupational aspirations, school social involvement aspirations, and the aspirations versus expectations disjunction for educational success have all been measured.

In general, it is found that the absence of aspirations correlates moderately with the indicators of loneliness. Thus, low educational aspirations correlates with school social involvement (-.22) for girls and (-.34) for boys. This indicates that the absence of educational aspirations correlates negatively with involvement in the social activities in the school. Turning to parental relationships, it is again found that the absence of aspirations correlates with parental rejection. This applies both to educational aspirations and occupational aspirations. For example, in the sample of males, the absence of educational aspirations

correlates with parental rejection (.21) while the absence of occupational aspirations correlates with parental rejection (.27). In the three age groups, similar patterns of correlations are found. The absence of occupational aspirations is found to correlate with low school social involvement on the one hand and parental rejection on the other. The correlations are generally between .20 and .30. These findings confirm the expectation that the absence of aspirations would negatively influence relationships, in this case with parents.

In the Swanson and Mobley data, Values for Individuality and Expectations for Individuality were additionally measured. It was found that the values for individuality scale had minimal correlations with the various indicators of loneliness. This was true for boys and girls and for the three age brackets. However, expectations for achieving individuality had very strong relationships with the different aspects of loneliness. In each instance, the expectations score correlated highly positively with indices of belongingness, negatively with indices of loneliness. For instance, expectation for individuality correlated with general non-loneliness (.34) and loneliness as a disjunction (-.49) in the sample of girls. It has similar correlations for the three age groups and for boys.

Identity and Self-Esteem

The theoretical expectation is that a strong sense of identity, and/or high self-esteem would be inversely related to the various aspects of loneliness.

In the Swanson and Mobley data, this expectation is immediately borne out. The identity variable correlates with: general non-loneliness (.38); social integration (.39); pessimism regarding social popularity (-.27); emotional belongingness (.28), and loneliness as a disjunction (-.20). This is for the sample of girls. The results for boys are of the same magnitude. Similarly, in the different age brackets, identity is inversely related to the various indicators of loneliness. A point to be noted in these correlations is that the relationship between identity and social

integration is stronger than with emotional integration or emotional belongingness. In each case, the correlations with social integration are often close to .40 whereas with emotional isolation, they are closer to .20 or .25.

The Office of Youth Development scale of self-esteem correlates consistently negatively with the indicators of loneliness. For example, in the sample of females, it has the following correlations: with self-reported loneliness (-.40); social isolation (-.23); shyness (-.34); emotional isolation (-.38), and normative confusion (-.39). The pattern of relationships for boys, and for the three age groups is essentially similar. In this instance, it is important to note that correlations between self-esteem and social isolation are somewhat lower than those with emotional isolation. Thus, a reversing of the ordering of those which were noted with the Swanson and Mobley. However, in this instance, we are correlating self-esteem rather than strength of identity with the various indicators of loneliness.

In the Colorado data, the self-esteem scale also correlates negatively with the disjunction score for school social involvement/aspiration. This indicates that the higher the disjunction, the lower the self-esteem. This is to be expected theoretically. This negative correlation is found for both sexes and for all three of the age groups. It is relatively weak, however, in the 14-15 age bracket. Additionally, self-esteem in the Colorado data has a very strong negative correlation with parental rejection. Again, both sexes and the three age ranges all show this strong negative correlation. Self-esteem has no clear relationship to time spent alone nor school involvement.

Social Skills and Social Styles

In this section we examine a number of variables which reflect social skills and social styles of the youth. Shyness in the Colorado sample has a positive correlation with loneliness as a disjunction (in regard to school social involvement). These correlations are .31 for boys and .11 for girls. This higher relationship between shyness and

frustrated social involvement for boys suggests that shyness is a more powerful inhibitor in regard to social involvement for boys than for girls.

Altruism, as might be expected, correlates generally positively with all of the indices of emotional and social belongingness. For instance, it has the following correlations in the sample of Indiana girls: general non-loneliness (.18), emotional belongingness (.27), and loneliness as a disjunction (-.30). Correlations are similar in the sample of boys, with a slightly higher relationship (.24) with emotional belongingness. The under 13 group has a particularly strong relationship between altruism and loneliness as a disjunction (-.43). Similar correlations are found in the three age groups.

A further aspect measured in the Indiana sample was an item indicating 'feelings of unpopularity'. This item has moderately high relationships with the various indicators of loneliness. In the sample of girls, it correlates with: general non-loneliness (-.37), social integration (-.23), emotional belongingness (-.41), meaningfulness (-.26) and loneliness as a disjunction (.36). Similar high correlations are found for boys and for the three age groups.

A related variable in the Indiana data was the feeling of 'expectations of respect and affirmation from others'. This was scored such that a high score implies 'low expectation of respect'. As expected, the variable correlates significantly with most of the indicators of loneliness, e.g. in the sample of girls it has the following correlations: general non-loneliness (-.35), social integration (-.21), emotional belongingness (-.36). Correlations of this magnitude are also found for boys, and for the three age groups.

Time Structuring Autonomy

The Indiana scale measures a tendency towards the autonomy of the youth in deciding for themselves how to spend their free time. This is not strictly a measure of time structuring but is more a tendency towards personal decision-making and autonomy regarding the use of leisure time.

This scale correlates moderately with an absence of loneliness and generally negatively with the indicators of loneliness. For instance, in the sample of boys, it correlates with 'loneliness as a disjunction' (-.25). Looking at the different age ranges, some more pronounced correlations are found. In the under 13 group, it correlates with 'loneliness as a disjunction' (-.24) rising to (-.31) in the 16+ age group. It might be noted that in the 16+ age group, time structuring also correlates .21 with emotional belongingness. These correlations, although moderate, are in the theoretically expected directions.

PEER ENVIRONMENT AND EXPERIENCES

The Indiana data contains the scale 'peer expectations for success and popularity'. This assesses perceived peer pressure towards popularity and success. Such perceptions correlate negatively with the various indicators of loneliness (and non-loneliness). For instance, in the sample of boys (N=271), it is found that such peer expectations correlate with general non-loneliness (.31), social integration (.20), emotional belongingness (.36) and loneliness as a disjunction (-.20). Similar correlations were found for girls and for the various age groups.

In the San Diego data, one question examines the degree to which youth's peers are forbidden or prevented from entering into the home of the youth. This variable examines the level of separation and disapproval between the youth's parents and his friends. This variable correlates highly positively with isolation from parents (.43 for girls and .29 for boys). It also has a strong relationship with self-pity. The higher the isolation of peers from parents the greater the self-pity (-.43 for girls and -.34 for boys).

A second aspect of peer relationships in the San Diego data explores the degree to which the youth feels that he or she can be easily influenced by peers. As expected, this variable correlates fairly closely with 'peer closeness' (.21 for girls and .14 for boys). It has no other relationships with any of the other indicators of loneliness in this data set.

FAMILY ENVIRONMENT AND EXPERIENCES

A question examined in the Indiana data set is whether parents encourage or discourage the youth in their various self-chosen activities. This item correlates fairly highly with the various indicators of loneliness and belongingness; with general non-loneliness (.28); social integration (.31); emotional belongingness (.20). The above correlations for boys were found also in the sample of girls.

A scale was developed in the Indiana data to examine the youth's perception of whether his parents had expectations that they would be popular and successful. This correlated only moderately with various indicators of loneliness. There were virtually no clear relationships in the 16+ age bracket. However, in the younger age brackets, it was found to correlate more clearly with indicators of loneliness, e.g. in the 13-15 age bracket: with general non-loneliness (.24); social integration (.24), and emotional belongingness (.20).

A further item in the Indiana data examined the relationship between the child's perception of 'strictness' of parents and the various forms of loneliness. It was found that for the general sample of boys and girls, there were no substantial correlations. However, when the various age groups were examined, it was found that fairly significant correlations were found in the under 13 group, with general non-loneliness (-.25), social integration (-.26) and identity (-.26). This indicates that high perceived strictness is related to the presence of loneliness in this age bracket. However, the correlations steadily diminished among older youth. In the 16+ group, there were no substantial relationships between parental strictness and the various aspects of loneliness.

The OYD data set contains a scale negative labeling by parents. This scale examines perceived negative stereotyping of the youth by the parent (as perceived by the youth). High correlations were found between this variable and social isolation (.25) and emotional isolation (.29) for the sample of females. Similar correlations were found for the sample of males, and particularly among younger adolescents. For instance, in the under 13 group, negative labeling correlated with

social isolation (.25), emotional isolation (.22) and normative confusion (.26). However, in the older age groups, these relationships diminished or disappeared.

A further question in the OYD sample examined parental violence against youth. Basically, the question asked whether this was a problem for the youth. Parental violence correlates with social isolation (.35), emotional isolation (.35), and self-reported loneliness (.14) for the sample of females. Similar correlations were found for the sample of boys. In addition, it correlated with shyness (.20) and normative confusion (.20). Similar substantial correlations were found between parental violence and the various forms of loneliness for all three age groups in this sample.

The parental rejection scale examines whether the youth perceives his parents as rejecting, blaming, and not caring for him or her. As might be expected, this variable correlates substantially with most of the indicators of loneliness. In the sample of females, it correlates with social isolation (.38), emotional isolation (.44) and self-reported loneliness (.22). Similar substantial correlations were found for boys and for all three age groups.

The 'home failure' variable in the San Diego data set confirms that problematic relationships in the home are related to various forms of loneliness. This variable correlates with emotional isolation (.24), low self-pity (-.37), unhappiness (.37) and isolation from parents (.53). Similar relationships were found for both boys and girls.

Rejection of the parent on the part of the youth has been measured in the Colorado data set. This has moderate correlations with some indicators of loneliness. For example, in the sample of females, it correlates with school social involvement disjunction (.20), and in the sample of boys with school involvement (-.23). These relationships again are much more visible in the youngest age bracket where rejection of parents correlates with time spent alone (.21), school involvement (-.25) and school involvement disjunction (.26). This result repeats the trends which have already been found in other data sets regarding the greater importance of parent-child relationships in the youngest age group.

SCHOOL ENVIRONMENT AND EXPERIENCES

Academic Success and Expectations of Success

An environmental variable measured in the Indiana data is perceived pressure towards success. This assesses the youth's perception that the various persons in his or her environment expect him or her, or regard it as important, to be successful. The variable has positive correlations for boys with non-loneliness: in the sample of boys, it correlates with general non-loneliness (.27); social integration (.20), and emotional belongingness (.29). The girls' sample has substantially lower correlations than these. This relationship also weakens in later (16+) adolescence. However, these correlations are significant in the under 13 group, e.g. with general non-loneliness (.23), emotional belongingness (.23), meaningfulness (.35) and loneliness as a disjunction (-.25).

The variable school expectations assesses the perception of the youth that his teachers regard it as important that he get good grades, and that he be a success. This variable has moderate correlations with non-loneliness, e.g. with general non-loneliness (.20), emotional belongingness (.20) for the sample of boys. Again, there are virtually no substantial correlations for this variable with loneliness in the sample of girls. Across the three age classes, only moderate correlations are again found and these diminish in the older two age groups.

The two variables, expectation and value for academic recognition have already been discussed in the personality section. We should reiterate here that 'expectations for academic recognition' showed substantial correlations with non-loneliness and negative correlations with loneliness.

The OYD sample has a variable access to desirable educational roles. This variable assesses the feelings of opportunity and expected success on the part of the youth to achieve desirable and successful educational roles (primarily academic success). The variable has a number of substantial correlations with the various indicators of loneliness, e.g. in

the sample of girls, it correlates with: social isolation (-.23); emotional isolation (-.23); normative confusion (-.27). In the sample of boys it correlates with social isolation (-.25). However, in the sample of boys, all of the other correlations are below .20. In the 16+ age group, substantial correlations exist between access to educational roles and social isolation (-.29), emotional isolation (-.26) and normative confusion (-.24). In the under 13 age range, it correlates with self-reported loneliness (-.23) and normative confusion (-.36).

Adolescent Attitudes Towards School

The variable negative school attitudes assesses dislike and apathy towards school. In the San Diego samples, for both boys and girls, this variable has some substantial correlations with indicators of loneliness. For boys and girls it correlates positively with emotional isolation (.22 and .19 respectively). Negative school attitude is also related to isolation from parents (.30 and .32 for boys and girls) and to self-pity (.20 and .27). A paradoxical result is that although it generally relates to emotional isolation, self-pity, and isolation from parents, it is also related to peer closeness (for boys and girls the relationships are .27 and .23, respectively). This perhaps suggests that as the youth is more isolated from parents and more isolated from school, that there may be a banding together of such youth, thereby bringing about the somewhat high score for peer closeness.

In the Colorado data set the measure attitudes toward school assesses positive enjoyment of school versus a negative, apathetic attitude towards school. It correlates positively with school involvement for both sexes and for the three age brackets with most of the correlations being beyond .20. Additionally, it correlates negatively with parental rejection, again with most of the correlations being around .20. The variable 'rejection of school' has the reverse pattern of correlations. In the sample of males, this variable correlates with school social involvement (-.35) and parental rejection (.34). It also relates to school social involvement disjunction (-.24). All of these correlations

are in the expected direction, and it is found that similar relationships hold for the sample of girls and for the different age groups.

Relationships with Teachers and Experience of the School Environment

One item in the Indiana data set concerns whether the youth feels uncomfortable in the presence of teachers. This variable has some moderate correlations with feelings of loneliness. It correlates with: in the sample of boys, general non-loneliness (.21), and emotional belongingness (.21). It has even lower correlations for girls and for the older age groups.

The OYD data set contains the variable negative labeling by teachers. This examines the perceived negative stereotyping which the youth experiences at the hands of teachers. The results suggest a moderate relationship between such negative stereotyping and social isolation. For example, in the sample of girls it correlates with social isolation (.20). However, in the youngest age group, substantial correlations are found, e.g. with social isolation (.39), emotional isolation (.21) and normative confusion (.23). This is another indicator of an age difference. A further variable examined in the OYD data is expulsion from school. This has some moderate correlations with the indicators of loneliness, e.g. in the sample of males with social isolation (.21) and meaninglessness (.21), and amongst girls, with social isolation (.20) and meaninglessness (.19).

In the San Diego data set, a variable similar to teacher labeling is the perception of the youth on whether the teacher believes that he or she is or is not a 'problem child'. This variable has minimal or moderate correlations with the various indicators of loneliness. For instance, it correlates with isolation from parents (.24 for girls and .25 for boys). It also has moderate correlations with an absence of self-pity (.21 for boys and .18 for girls).

A second example of teacher negative labeling as it influences loneliness is found in the Colorado data set. In this case, for boys, it correlates with an absence of involvement in school (-.27) and parental

rejection (.34). This indicates that it is related to low school social involvement and poor relationships with parents. For girls, lower and insignificant correlations are found. When the age groups are examined, it is found that in the younger age groups, much higher correlations are found. For instance, in the under 13 age bracket, teacher negative labeling correlates with: time alone (.20) and parental rejection (.47). In the 14-15 age range, it correlates with school social involvement (-.41), parental rejection (.44) and school social involvement disjunction (.23). These results clearly imply that teacher stereotyping of the youth is closely related to various aspects of loneliness.

SITUATIONAL FACTORS AND LONELINESS

The OYD sample has a measure of transience or relocation (assessed by a short length of time in the present neighborhood). This variable has virtually zero correlations with all of the indicators of loneliness.

In the Colorado data, the life events scale assesses the degree of the family disruption. Events such as divorce, death, serious illness, and so forth, are assessed in this scale. No substantial correlations are found between this scale and any of the indicators of loneliness.

Moving over to general community variables, the OYD assesses low access to recreation and feelings of racial or sexual discrimination in the community. It is found that both of these have fairly substantial correlations with varying aspects of loneliness. For instance, in the sample of OYD girls, low access to recreation correlates with: social isolation (.35); boredom (.49); emotional isolation (.31), and meaninglessness (.47). Similar correlations are found in the sample of boys. Turning to racial and sexual discrimination, it is found that this correlates with social isolation (.34), boredom (.24), emotional isolation (.23), meaninglessness (.34). These correlations also hold for the various age groups and for boys.

DELINQUENT AND ANTI-SOCIAL BEHAVIORS

Each of the data sets has a battery of anti-social behaviors. The general theory here is that the factors leading into loneliness may also be conducive to anti-social attitudes or behaviors.

Examining the Swanson and Mobley data, it is found that virtually no relationships are found to reach significance between any of the anti-social behaviors and any of the indicators of loneliness for the sample of girls. In the sample of boys, however, a number of substantial correlations are found. For example, violent offense scale correlates with general non-loneliness (-21). Similarly, the vandalism scale correlates with general non-loneliness (-.25), with social integration (-.22). And finally, attention-getting offenses correlates with general non-loneliness (-.28), social integration (-.26), emotional belongingness (-.20) and meaningful identity (-.22). Attention-getting offenses seems to be most clearly related to loneliness. For example, in the 13-16 age group, attention-getting offenses correlates with general non-loneliness (-.24), social integration (-.23), emotional belongingness (-.17), meaningfulness (-.21).

The OYD data set examines similar relationships. The tendency to use drugs correlates with: boredom (.23); emotional isolation (.20), and meaninglessness (.18) in the sample of girls. In the sample of boys the correlations were: social isolation (.24); emotional isolation (.21), and meaninglessness (.18). Such relationships, however, are present only in the two younger age classes and disappear in the 16+ age group. Turning to violent offenses, there are no substantial correlations. This is true also of the two younger age groups and for boys and girls. There seems to be simply no relationship between violence and indicators of loneliness.

Vandalism in the OYD male sample correlates with social isolation (.23), but has no relationships in the girls sample with any of the loneliness indicators.

Theft, in the sample of males, correlates with social isolation (.24) and emotional isolation (.20). While amongst girls, there are no substantial relationships. There are no clear age trends.

In the San Diego data, it is found that there are low or moderate correlations between various indicators of loneliness and the offenses

of running away, alcohol and drugs, and theft. None of these reach substantial sizes except for the relationship between theft and peer closeness. This relationship (.24) indicates that there is a moderate relationship between frequency of theft and high levels of peer closeness. A second relationship relates to runaway. This indicates that running away tends to be associated with self-pity. The relationship in this case is (.24). There are no substantial relationships between alcohol or drug use and the indicators of loneliness in this data set.

SUMMARY

This chapter sets out the results of a series of analyses in which the social psychological variables in each data set are correlated against the various indicators of loneliness. Separate correlation matrices were generated for boys and girls, and for three age groups (U12, 13-15, 16+). The variables were grouped into 1) person variables, 2) peer environment variables, 3) family environment and relationships, 4) school environment, 5) situational factors, and 6) delinquent and anti-social behaviors.

Among personal variables it is found that the following have moderate (but significant) correlations with indicators of loneliness: external control; powerlessness (both general and in regard to family and peer relationships); normlessness; low expectations for academic success and for individuality (surprisingly, the values scales for individuality and academic success had only minimal correlations with loneliness); low self-esteem; identity confusion; low altruism; feelings of unpopularity, and poor time structuring.

Peer expectations and pressure towards popularity clearly correlate negatively with loneliness. Antagonism between parents and peers correlates positively with certain aspects of loneliness. Turning to the family, the following have moderate correlations with loneliness: parental strictness (only in the younger age group); low parental support for the youth's activities; negative labeling by parents; parental violence; parental rejection, and youth's rejection of parents. In the school, the following correlated moderately (but significantly) with loneliness: low perceived pressure towards success; low expectations for success; low access to desirable educational or vocational roles; negative attitudes to school, and negative relationships with teachers.

Surprisingly, relocation and family transience had no clear relationship to loneliness; nor did general levels of family disorganization (divorce, death, unemployment, etc.). However, feelings of discrimination had significantly positive correlations with loneliness.

Finally, there is strong evidence of a relationship between loneliness indicators and various forms of delinquent behavior, particularly vandalism, drug use, theft, and so on. These associations were often somewhat stronger for boys than for girls.

There are high levels of similarity between the patterns of correlations for the boy and girl samples, and for the three age groups. Occasionally some differences are found. These are mentioned in the text.

CHAPTER 8

COMPARISONS BETWEEN LONELY AND NON-LONELY YOUTH

INTRODUCTION

In this chapter our general purpose is again to investigate the characteristics which differentiate lonely youth from those who do not suffer loneliness. Consequently, for each data set, we have separated those youth in the top third of the distribution of loneliness from those youth who are in the bottom third of the experience of loneliness. These groups are then compared across all social, psychological, and behavioral variables. The goal of this chapter is descriptive rather than theoretical. At this point, we simply attempt to characterize highly lonely youth. In this chapter we do not attempt to theoretically integrate the present findings. The later multivariate chapters provide more appropriate methodology for examining the characteristics of lonely youth in a more 'wholistic or structured' manner.

CHARACTERISTICS OF SOCIALLY ISOLATED YOUTH

General Comparisons

a) The OYD analysis indicated that highly socially isolated youth (top 30% of the distribution) are characterized by the following at beyond the .05 level of significance:

1) normlessness;
2) lower perceived access to education;
3) lower self-esteem;
4) higher powerlessness over peers;
5) pessimism;
6) external control;
7) being expelled from school;
8) experiencing violence from parents;
9) parental rejection;
10) normative peer pressure towards deviance;
11) problems of access to recreation;
12) feelings of sexual and racial discrimination;

13) negative labeling by parents;
14) negative labeling by teachers, and finally
15) all forms of delinquency including theft, normlessness, vandalism, violence and drugs.

It should be noted that the sample sizes for the comparison groups were N=90 for the socially isolated and N=136 for the non-socially isolated. Therefore, part of the consistency of these significant differences may be associated with relatively high sample sizes.

b) The San Diego data indicated that socially isolated youth had the following characteristics at beyond the .05 level of significance:

1) a feeling of not going far in school;
2) shyness in face-to-face situations;
3) lower expectations of success, and finally
4) a higher level of isolation between parents and their friends.

c) In the Indiana data, the following differentiating features were found for socially isolated youth:

1) lower expectation for academic recognition;
2) external control;
3) higher feelings of pessimism or powerlessness;
4) more serious problems in the area of identity confusion;
5) an extremely low expectation for achieving individuality;
6) feelings of lack of others' affirmation and respect;
7) normlessness;
8) a tendency to ignore trouble in a passive way when it occurs;
9) weaker environmental pressure towards success;
10) weaker environmental pressure towards good social relationships, and surprisingly
11) a larger number of siblings in the home.

Sex Differences and Social Isolation

a) The Office of Youth Development ANOVAs indicates that the following differences are found between socially isolated girls and socially isolated boys: lonely boys have higher levels of normlessness than girls, lower access to education, and stronger peer pressure towards deviance than girls. Boys experience more severe labeling by both teachers and parents in regard to their 'rudeness'. Finally, boys report more severe negative labeling by teachers than do lonely girls.

b) Turning to the San Diego data, the following differences are noticed between lonely boys and lonely girls: boys have a lower value for social involvement; a higher tendency towards unconventional and trouble-making behavior; more normlessness; they are more often seen as 'problem children' by teachers; their friends are more isolated from their parents, and they have higher scores for home failure and poorer scores for social adjustment than girls as rated by teachers. These results suggest that lonely boys are somehow perceived as being more problematic in terms of social adjustment and deviant behavior than are lonely girls.

c) There are no large differences between the lonely boys and girls in the Indiana sample. However, one difference which reaches significance is that girls are particularly less likely to show altruism to others than are the lonely boys.

Age Differences in Youth Who Are Socially Isolated

a) A first noticeable difference when comparing lonely youth under 14 with those youth over 16, is that the older age group has significantly lower scores for perceived access to occupational roles. This may indicate a gradual onset of pessimism regarding occupational success. A second difference is that the older lonely youth exhibit a move away from the extremely high scores for external control which are shown by the younger group. Lonely younger youth (U 14) also have higher scores for feelings of racial and sexual discrimination than do the youth in the over 16 age group. Younger youth have more severe scores for negative labeling by teachers according to perceived rudeness. It should be kept in mind that this labeling is 'perceived' negative labeling on the part of the youth.

b) Turning to the Indiana data, the following differences between younger lonely youth (U 14) and older lonely youth (16+) are established: there is a significant increase in autonomy of time structuring for the two high age groups (i.e. boys and girls) when compared with the two under 14 age groups. The youth in the younger brackets have particularly low scores for autonomy and time structuring. A further difference is that the two younger age groups have lower scores for normlessness than do the two older age groups. This result occurs for both sexes. There are no other clear significant differences between age groups in this data set.

CHARACTERISTICS OF EMOTIONALLY ISOLATED YOUTH

General Comparisons

a) Comparing youth at the upper and lower 30% of the distribution for emotional isolation in the OYD data set leads to a very large number of significant differences. Highly emotionally isolated youth are characterized to a significant level (beyond the .05 level) on the following variables:

1) normlessness;
2) low access to educational roles;
3) low access to occupational roles;
4) low self-esteem;
5) powerlessness over peers;
6) powerlessness over parents;
7) pessimism;
8) external control;
9) parental violence against the youth;
10) parental rejection;
11) difficulty in access to recreation;
12) feelings of being discriminated against (for sex or race);
13) negative labeling by parents, and
14) use of drugs.

b) In the San Diego data set, emotionally isolated youth are characterized by the following:

1) unconventionality and trouble-making;
2) normlessness;
3) negative attitudes towards school;
4) being thought of as a problem child by teachers;
5) isolation between parents and friends;
6) home failure;
7) the use of alcohol and drugs (at beyond the .10 level);
8) theft (also beyond the .10 level), and
9) home normlessness.

c) In the Indiana data set, emotionally isolated youth are characterized by the following:

1) high frequency of attention-getting offenses;
2) lower expectation for academic recognition;
3) external control;
4) lower altruism;
5) higher pessimism and powerlessness;
6) weaker identity;
7) less autonomous time structuring (at beyond the .10 level);
8) lower expectation for individuality;
9) stronger feelings for lack of expectations for affirmation of self;
10) weaker environmental pressure towards success;
11) weaker environmental pressure towards good social relationships,
12) higher theft offenses, and
13) more vandalism.

Sex Differences and Emotionally Isolated Youth

In the OYD data set, it is found that few sex differences exist. Boys for both age groups are higher in regard to normlessness, and for perceived negative labeling by teachers.

Turning to the San Diego data, sex differences are found in the following variables: boys have a feeling that they will go farther in school than lonely girls, and also in the tendency towards being unconventional, normless and alienated. Boys also have a lower rating for social adjustment from teachers than do girls. No other significant differences are found. The latter two are only at the .10 level. Turning to the Indiana data, a first noticeable difference is that lonely boys have a lower score than their female age counterparts for identity. This is consistent with the finding that girls in both age groups score significantly higher than boys for feelings of expectations for individuality. A further significant difference is that lonely girls in both age groups have lower scores in regard to pressure towards success than do their male counterparts. Surprisingly, lonely girls have significantly lower scores in regard to 'environmental pressure towards good social relationships' than their male age counterparts.

Age Differences in Emotionally Isolated Youth

In the OYD data, the first finding is that the younger lonely youth acknowledge higher access to rewarding occupational roles than do the older lonely youth. A second finding is that there is higher transience in terms of recency in the particular neighborhood amongst younger youth than amongst the two older age groups. Additionally, the younger age groups of both sexes acknowledge more feelings of racial and sexual discrimination than do the two 16+ age groups. Negative labeling by teachers is particularly high in boys under 14. Looking at perceived negative labeling by teachers in both sexes, it can be seen that boys in each age bracket have significantly higher scores than do girls in the same age bracket.

CHARACTERISTICS OF YOUTH WITH HIGH SCORES FOR SELF-REPORTED LONELINESS

General Comparisons

In examining youth who have high scores for self-reported loneliness versus those who have low scores, again using the top and bottom 30%,

a large number of significant differences are found. These are as follows:

1) normlessness;
2) low access to occupational roles;
3) low self-esteem;
4) powerlessness over peers;
5) powerlessness over parents;
6) pessimism;
7) external control;
8) experiencing violence from parents;
9) parental rejection, and
10) feelings of racial and sexual discrimination (at the .10 level)

Sex Differences and High Self-reported Loneliness

Boys who report high on self-reported loneliness have higher scores for normlessness, peer pressure towards deviance, and finally, negative labeling by teachers.

Age Differences and High Self-reported Loneliness

Boys over 16 in particular have high scores for normlessness, while both sexes in the older age group have low scores for access to occupational roles. Younger youth in particular (of both sexes) have low scores for self-esteem. There is again a tendency for youth in the older age brackets to be somewhat more stable in terms of length of time in the present neighborhood than the younger youth. Boys in both age groups but in particular those under 14 have the most serious scores for negative labeling by teachers.

SUMMARY

For selected loneliness dimensions (social isolation, emotional isolation, and self-reported loneliness) we compared the top and bottom 30% of the distributions. This gave a general comparison between low and high levels of loneliness. Additionally, within the 'high lonely' groups we compared boys vs. girls, and the U12 vs. 16+ age groups.

Essentially the same set of general characteristics emerged (at significant levels, .05) to differentiate the lonely from the non-lonely, for each of these three dimensions. These were: low self-esteem; external control; normlessness; powerlessness; expulsion from school; school failure; negative labeling by teachers; low expectation for school success; and in the family, negative labeling by parents, parental rejection, parental violence, and delinquent behavior.

Some sex differences were found between lonely boys and girls. These were that lonely boys tend to be more normless, unconventional, higher for 'acting out' behavior and for being perceived as 'problems', higher for having delinquent peers, and for being negatively labeled by teachers. A large variety of such differences are identified across the four data sets.

In comparing older and younger lonely youth some interesting differences were found. Older youth were differentiated from the U12 group by: greater pessimism regarding occupational success; somewhat higher autonomy of time structuring; a less extreme score for external control; higher normlessness; lower levels of transience, and less severe scores for negative labeling by teachers.

CHAPTER 9

PREDICTING LONELINESS AMONGST ADOLESCENTS

In this chapter we examine the prediction of adolescent loneliness. Three separate multivariate approaches were adopted:

1. Stepwise linear regression - In this instance we selectively examine the prediction of emotional isolation, social isolation, general loneliness, and loneliness as a disjunction. Age and sex differences are selectively examined. Multiple correlations (R) indicate a general predictive accuracy. Additionally, these analyses allow 'best predictor sets' to be established.
2. Discriminant function analysis against the previously developed taxonomic systems of loneliness - In Chapter 6 we developed classifications of adolescent loneliness. In this exercise we utilize the multiple discriminant analysis, using the social and psychological variables, to predict class membership of each case within these loneliness classification schemes. Predictive accuracy is shown in the degree to which there is an improvement over chance levels of 'correct classification'.
3. Development of a Predictive Typological System - Following the identification of those variables which were 'optimal predictors' of loneliness, we used these variables to construct a taxonomic system of adolescents. This taxonomic system was then correlated against the various loneliness criterion variables (social isolation, emotional isolation, etc.). Significant associations indicate the predictive power of the typology. Furthermore, the typology is useful in indicating optimally predictive patterns of social psychological variables.

In the summary section of this chapter we note the interesting overlap between these three approaches to the prediction of loneliness. This

is partially expected at both a theoretical and methodological level of analysis. The integration of the three sets of findings adds to our description and understanding of adolescent loneliness.

PREDICTING LONELINESS USING STEPWISE LINEAR REGRESSION

In the following we examine multivariate prediction between the explanatory variables in each of the data sets and different kinds of loneliness using stepwise multiple regression.

1. GENERAL LONELINESS VS. INTEGRATION

In the Indiana data we collapsed the social and emotional aspects of loneliness into one composite loneliness variable. It should be recalled that in the Indiana data this variable is scored in a direction such that a high score indicates 'belongingness'. The stepwise regression analysis was conducted for the total sample, boys and girls separately, and then for the two age groups. The multiple correlation (R) was, in each case surprisingly similar:

Sample	Multiple Correlation
1. Total sample	R = .56
2. Boys	R = .58
3. Girls	R = .58
4. Under 14	R = .63
5. Over 16	R = .56

The size of these multiple correlations indicates that the predictor battery in the Indiana data had a moderate (but encouraging) power to explain levels of loneliness.

Examining the order of entry and contribution of each variable to this prediction for each of the above regression analyses we found the following:

a) Total Sample Analysis: Stable identity and expectation for individuality emerged as the first and fourth variables in the stepwise regression equation. Their contributions were significant (at beyond $p = .05$) in each case (see Appendix 9). These variables emphasize

the importance of the sense of self. The expectation that others will be affirming, environmental pressure to be popular, time-structuring, and internal control, were all added as significant (p = .05) predictive variables.

b) Boy and Girl Analyses: Identity, individuality, and autonomy in time-structuring were three significant contributing variables for girls. For boys the significant variables were: expectations for affirmation of self; identity; peer pressure towards popularity, and expectation for academic recognition.

c) Age Differences: We have examined only the U14 and 16+ age groups - primarily to capitalize on pre- and post-puberty tendencies in regard to loneliness. In the under 14 regression, internal-external control, number of siblings at home, and general environmental pressure to be popular were the three most important variables in the regression equation. In contrast, the 16+ equation indicates expectations for affirmation as the most important variable, followed by identity. It might be noted that the multiple R for the 16+ group is .56 in contrast to .63 for the under 14 group.

2. LONELINESS AS A DISJUNCTION

Separate regression analyses were conducted for the total sample, and the separate age and sex categories. The following multiple R correlations were obtained:

Sample	Multiple Correlation
1. Total Sample	R = .63
2. Girls	R = .71
3. Boys	R = .58
4. U14	R = .64
5. 16+	R = .66

In this instance the same set of predictor variables were used in conducting these regression analyses.

a) Total Sample Analysis: The tables in Appendix (9) indicate that the expectations variables entered significantly into this regression

equation. Both expectations for individuality and expectation for academic recognition were negatively related to this form of loneliness. They entered into the stepwise regression as the first and second variables. Following from this the two 'values' (i.e. value for academic recognition and value for individuality) entered into the equation. With only these four variables, the multiple R was .61. Following from these variables altruism and identity enter as significant predictors.

b) Girl and Boy Analysis: These two analyses, in terms of the first four predictor variables, are basically the same as the total sample analysis with slight alteration in the ordering of the first four variables. It should be noted that in the boy analysis only these first four variables reach significance. In the girl analysis the variable 'low expectation for affirmation of self' enters as a fifth significant predictor variable. Otherwise, the analyses are identical.

c) Age Differences Analysis: The analysis of the under 14 group is again highly similar to the total sample analysis with the 'expectations' variables being inversely related to loneliness, and the values variables entering into the equation as significant predictors. In the over 16 group 'expectation for individuality' appears as the most important predictor. However, expectation for affirmation of self and identity enter into the equation as the second and third positions. Both of these are significant. Thus, a sense of pessimism in regard to affirmation and identity appear to make important contributions to the prediction of this form of loneliness.

3. EMOTIONAL ISOLATION

In the OYD data set the predictor variables were used in multiple stepwise regression analysis against emotional isolation. Again, the analysis was conducted for total sample, boys and girls separately, under 14 and 16+ age groups separately. The following multiple R's were obtained:

Sample	Multiple Correlation	Explained Variance
1. Total Sample	R = .63	R^2 = .39
2. Boys	R = .59	R^2 = .35
3. Girls	R = .66	R^2 = .44
4. Under 14	R = .71	R^2 = .51

Examining the various stepwise ordering of predictor variables, the following results were obtained.

a) Total Sample Analysis: Eight variables entered into the stepwise regression equation at significant levels beyond .05. In order of appearance these variables are: pessimism and powerlessness; parental violence; parental rejection; low self-esteem; low access to recreation; powerlessness in regard to parental relationships; negative labeling by teachers, and a feeling of racial or sexual discrimination. Pessimism, low self-esteem, and powerlessness in regard to parents, all indicate the same general personality theme of powerlessness and passivity. The presence of parental violence, parental rejection and powerlessness in regard to parents implicate family relationships. It is encouraging to note that almost 40% of the variance of emotional isolation was 'explained' by this stepwise regression equation.

b) Boy and Girl Analysis: It is interesting to note that a substantial difference in multiple R exists between the boys and the girls (.59 for boys and .66 for girls). The analysis of boys gives almost the identical equation as that found above for the total sample, with pessimism, self-esteem, parental violence and parental rejection dominating the analysis. The equation for girls is somewhat different. Internal-external control enters as an extremely important predictor. Otherwise, most of the previously mentioned variables enter into the analysis. The equation for girls indicates severe parental rejection, parental violence, and powerlessness (in regard to parents) within the family of the lonely girls. The other features of this equation are external control, low self-esteem, and a feeling of racial or sexual discrimination.

c) Age Analysis: In the under 14 age group, internal-external control enters as the most important variable and pessimism as the second. Feelings of discrimination, parental rejection, and expulsion from school enter, in that order.

The over 16 group emphasizes the importance of self-esteem since this variable enters as the most important prediction followed by

parental violence and powerlessness over parents. Pessimism falls to fourth, and racial/sexual discrimination as the fifth. There are only five variables in the over 16 group which enter into the stepwise equation at beyond the .05 level of significance. Again, however, over 40% of the variance in emotional isolation is expalined by this regression analysis.

4. SOCIAL ISOLATION

The multiple R and explained variance levels are again reasonably encouraging in this set of analyses. The stepwise regression equations gave the following results for the different segments of the population:

Sample	Multiple Correlation	Explained Variance
1. Total Sample	R = .60	R^2 = .36
2. Boys	R = .64	R^2 = .41
3. Girls	R = .59	R^2 = .35
4. Under 14	R = .71	R^2 = .51
5. Over 16	R = .60	R^2 = .36

a) Total Sample Analysis: Low access to recreational opportunities, parental rejection, racial and sexual discrimination, pessimism, parental violence, powerlessness over peers and normlessness emerge as the most important variables, in that order. The analysis suggests that blocked access to recreational opportunities, feelings of discrimination, and blocked access to educational opportunities are important discriminating variables. Importance of family is underlined, with parental rejection and parental violence entering as important predictor variables. Self-esteem enters only as the ninth variable and does not quite reach significance (.06).

b) Boy and Girl Analysis: Again, the analysis of boys is remarkably similar to that of the total sample. In order of importance, the following variables entered into the boys equation: blocked access to recreation; parental rejection; racial and sexual discrimination; pessimism; powerlessness over parents; self-esteem; parental violence, and normative

peer pressure towards deviant behavior. The equation again suggests the importance of denial of access to social roles.

For girls, parental violence was the most important predictor, with sexual and racial discrimination, internal-external control, low access to recreation and parental rejection entering in that order. Normlessness and powerlessness over peers were also significant predictor variables. The sense of external control coupled with powerlessness over peers again suggests a particular form of passive personality orientation which is repeatedly found to be highly predictive of loneliness.

c) Age Analysis: In the under 14 age group, internal-external control is the most important predictor variable, with racial and sexual discrimination, parental rejection, and low access to recreation entering as significant variables. These were the only significant variables. The equation for the over 16 group was somewhat different with parental violence emerging as the most important predictor. However, variables such as low access to recreation, low access to education, feelings of discrimination, all entered as significant predictor variables.

PREDICTING LONELINESS-TYPE MEMBERSHIP USING DISCRIMINANT ANALYSIS

In an earlier chapter we developed taxonomic systems of various forms or types of loneliness. Each of the four data sets offered a particular taxonomy ranging from non-lonely types to highly lonely types. In the present exercise we attempt to predict type-membership of individuals within these various classes of loneliness, utilizing discriminant function analysis. To predict type membership in each instance we use the batteries of predictor variables which purport to explain or predict loneliness. We make a rough separation of these predictor variables into 1) personality or personal variables and 2) environmental variables. In the former, we have variables such as self-esteem, pessimism, attitudes, beliefs, and so forth. In the latter we have environmental variables, such as negative labeling by teachers, negative labeling by parents, blockage of access to social roles, expulsion from school, and so forth.

The following represent the predictive accuracy obtained under three general conditions: 1) when only environmental predictor variables are used; 2) when only personal variables are used, and 3) when a combination of personal and environmental variables are utilized in the discriminant analysis.

	OYD		INDIANA		COLORADO		SAN DIEGO	
	% Correct Class.	Chi Square	% Correct Class.	Chi Square	% Correct Class.	Chi Square	% Correct Class.	Square
Environmental Variables Only	39%	123.1	36.7%	79.7	39%	33.9	35%	56.1
Personal Variables Only	38%	113.8	51.7%	288.5	35%	17.3	37%	69.9
Composite Predictor Set	45.1%	211.9	53.7%	325.3	41.1%	45.1	43%	131.5

Examining the above table, it can be seen that in each case, the environmental variables make a substantial contribution to accurate type membership prediction. In each case there is an improvement over chance prediction which is highly significant at beyond the .01 level. However, it appears as though environmental and personal variables have about equal power to predict general type membership, except in the case of the Indiana data where personal variables make a far stronger contribution to predictive power (36% vs. 52% correct classification in the case of environmental and personal variables, respectively). These above analyses suggest that environmental variables cannot be regarded as any less significant in the prediction of general types of loneliness than variables such as personality, attitudes, beliefs, and so forth. We now turn to examine each of these specific analyses.

Predicting OYD type membership

In the environmental analysis low access to recreational opportunities, parental rejection, discrimination, normative peer pressure towards deviance, and parental violence, were all significant discriminators at beyond the .05 level. This set of predictor variables resulted in approximately 40% of cases being correctly classified into their respective types of loneliness.

Turning to personality variables, pessimism, self-esteem, normlessness, and feelings of powerlessness were all significant at beyond the .05 level.

In the composite analysis personal variables such as pessimism, self-esteem, and feelings of powerlessness over peers indicate the general passivity which differentiates between lonely and non-lonely types. However, environmental variables such as blocked access to recreation, racial and sexual discrimination, parental rejection, and negative labeling by teachers, were all additionally entered as significantly discriminating variables. All of these variables mentioned were significant at beyond the .05 level.

Predicting Indiana Type Membership

The personal variables were particularly powerful in their prediction of type membership (over 50% accuracy). Identity, low expectation for affirmation, expectations for individuality and expectations for academic recognition, value for social affection, and value for individuality, all entered as significant variables at beyond the .05 level. The presence of identity, expectation for individuality, and value for individuality, all suggest the importance of the development of individual identity as an important discriminator between lonely and non-lonely groups. Altruism also makes a significant contribution at beyond the .05 level.

In the environmental analysis only three variables were significant at beyond the .05 level. These were peer expectations, environmental pressure towards success, and family expectations. As might be expected in the composite analysis, most of the significant variables were from the personal predictor set. Identity again emerged as the main discriminating variable. Peer expectations entered as the second variable in the stepwise process.

Predicting San Diego Type Membership

Normlessness, value for social involvement, and high expectations for success, were all important discriminating variables. Conventionality, and alienation, additionally made significant contributions.

Only two variables reached significance at beyond the .05 level in the environmental analysis. These are home failure and susceptibility to peer influences, although the other variables continued to improve the Wilks Lambda level of this discriminant analysis.

Predicting the Colorado Type Membership

A number of variables reach significance as discriminators from the personal set. These included feelings of rejection of school, feelings of rejecting parents, school involvement aspiration, feelings of powerlessness in the family, powerlessness in regard to others, and low educational aspirations. These provide a 35% correct classification.

Regarding the environmental variables a number of parent-child relationship variables are the primary discriminators, including expressive rejection on the part of parents, protectiveness, parental violence, physical punishment, and high demand for achievement. Additionally, negative labeling by teachers and repeated grade were significant discriminators at beyond the .05 level.

PREDICTIVE TAXONOMIC SYSTEMS FOR ADOLESCENT LONELINESS

Purpose

The purpose of this exercise is to develop a predictive taxonomic system regarding loneliness. The earlier typological analyses aimed to clarify patterns of loneliness per se. Consequently, it made no utilization of the explanatory-predictor variables in its construction. The present taxonomic studies are also useful for theory development, since they facilitate the discovery of complex interactions between the explanatory-predictor variables. Consequently, a second general purpose of this analysis lies in the area of hypothesis generation.

Measurement Space

The measurement space for predictive typological systems is critical. It should include variables which have high salience to the prediction of loneliness. If salient variables are missing, then certain predictive discriminations may not be made. This will reduce the predictive accuracy of the classification.

In conducting the present set of taxonomic analyses we were, in each instance, overwhelmed with the very large number of potentially relevant predictor variables. At the same time we had only unreliable knowledge of either theoretical relevance of these variables or the empirical predictive power of each variable. A first cut in evaluating the relevance of variables were the zero-order correlations between each predictor variable and the indicators of loneliness. However, these only roughly indicate the predictive power of any particular variable. Consequently, we factor analyzed each domain of predictor variables. We utilized the four factor analyses to indicate redundancies between particular subsets of variables. However, our most useful procedure in obtaining a subset of predictive variables made use of discriminant analysis against the earlier generated loneliness criterion typologies. This allowed us to identify the small subsets of predictor variables which optimally discriminated between the various multivariate classes of loneliness as delineated in the earlier chapter (6). These discriminant function analyses can be seen in Appendix (9).

Sequence of Analysis and Reliability Checking

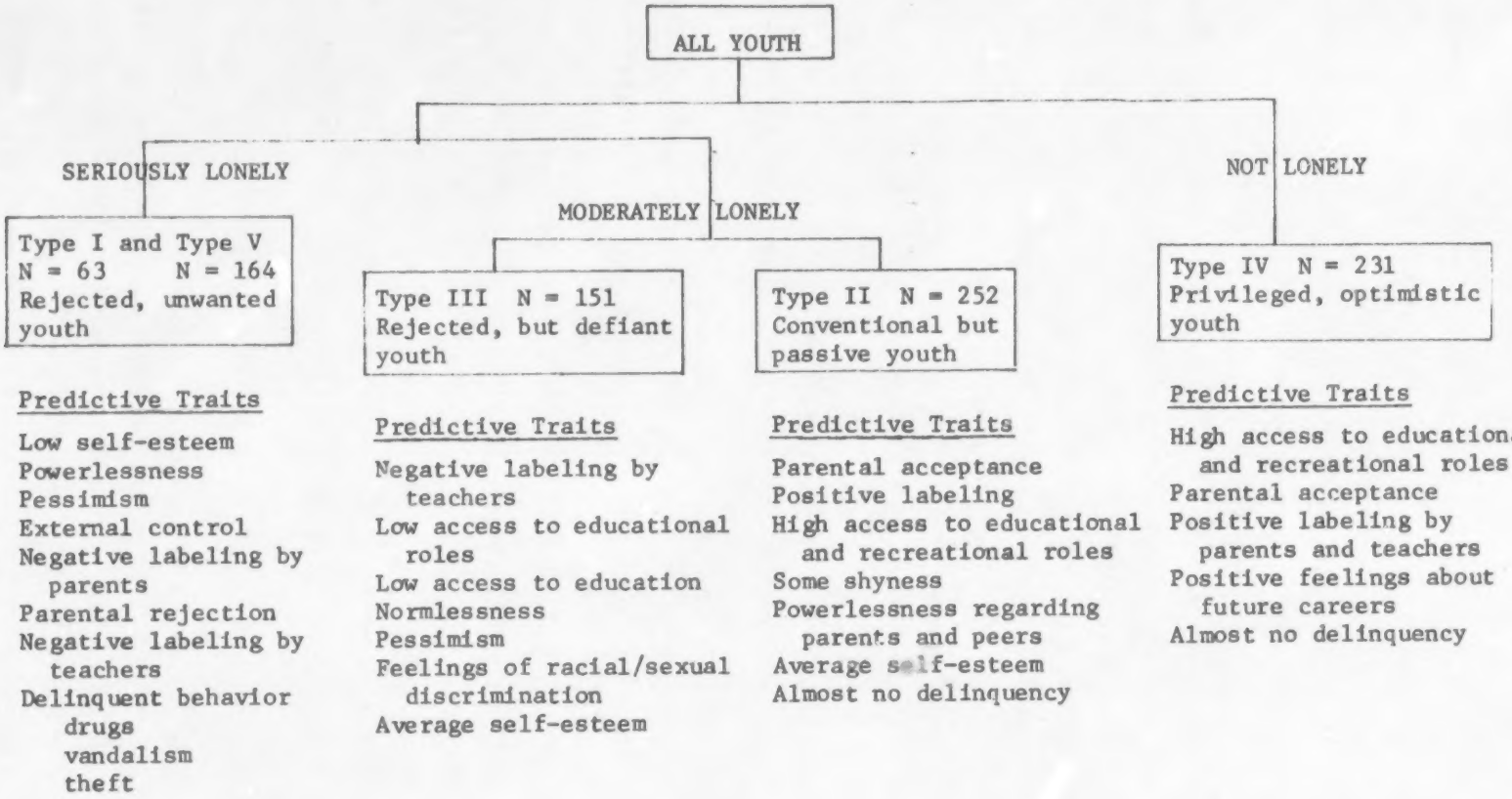
Following on from the delineation of a measurement space for each of the four systems, the first exercise involved an examination of the data space with a mode-seeking method (Huizinga, 1977). Following the mode-seeking procedure, a hierarchical minimum-variance method was then applied to indicate a particular cut-off level for an optimal system. Following on from the choice of a particular K level, we attempted to optimize the classificatory accuracy at that particular level by utilizing a K-means iterative approach. To study reliability the K-means methods were initiated from radically differing starting points, and the two different solutions were then compared. Reliability is shown if the analysis converges upon identical solutions.

Validity

In each case we examined the validity of the emerging typology by cross classifying it against selected external variables. Predictive validity is shown whenever there are high or significant associations between the typology and such external variables. These cross classifi-

TABLE 9.1

SCHEMATIC TYPOLOGY FOR OYD PREDICTIVE TAXONOMY REGARDING ADOLESCENT LONELINESS



cations were conducted by means of ANOVA, chi square analysis, contingency coefficients, and so forth.

OFFICE OF YOUTH DEVELOPMENT PREDICTIVE TYPOLOGY OF YOUTH

Measurement Space

The measurement space for this analysis included: normlessness; self-esteem; powerlessness over peers; powerlessness over parents; pessimism; access to educational roles; parental violence; parental rejection; normative pressure towards deviance; low access to recreational opportunities; racial and sexual discrimination, and negative labeling by parents. We reiterate that this subset of variables emerged primarily as a result of discriminant function analysis against the earlier loneliness taxonomic system.

Description of the Types

Type 1: Lonely rejected youth (7.3% of sample)

This type is characterized by tendencies towards normlessness, low self-esteem, powerlessness (particularly in regard to parents), and pessimism. The environmental situation looks bleak with parental violence, parental rejection, and negative labeling by parents. These youth also have above average feelings of racial and sexual discrimination.

External correlates: The external correlations of this type include association (at beyond .05) for external control, negative labeling by parents, negative labeling by teachers, normless delinquency, theft, vandalism, violence, and drugs.

The cross correlations of this type against the loneliness variables indicate severe isolation and loneliness. Significant differentiations (at beyond .05) include: emotional isolation; social isolation; meaninglessness; self-reported loneliness, and almost all of the other item indicators of loneliness.

Type II: Conventional, but socially powerless youth (not lonely) (29% of sample)

These youth are less normless than average. They have an average self-esteem. On the other hand, they show high levels of powerlessness both in regard to peers and in regard to parents. However, they suffer no violence, negative labeling or rejection at the hands of parents.

They do not indicate feelings of racial or sexual discrimination. Additionally, on the positive side, they seem to have reasonable access to both educational roles and recreation.

External correlates: These youth give no clear indication of loneliness. Additionally, they have very low scores (at beyond the .05 level) for all the indicators of delinquency. They are seldom expelled from school. They have an average score on internal-external control. They score close to average for all the other indicators of loneliness. They are not bored, nor socially isolated, but on the other hand, they have a somewhat higher than average score for awkwardness and some difficulties in getting along with friends.

Type III: Rejected but defiant youth (not lonely) (17.6% of sample)

These youth are characterized by high normlessness, pessimism, normative peer pressure towards delinquency, low access to recreational opportunities, low access to educational roles, and very high levels of racial and sexual discrimination. However, they do not appear to have low self-esteem.

External correlates: These youth have significantly low scores for access to occupational roles, and an average score for internal-external control. They do not appear to be highly lonely, although their loneliness score is above average (but not significant) on most of the sub-dimensions of loneliness. This group has significantly high scores for negative labeling by teachers, and high scores for theft, vandalism, and drugs.

Type IV: Privileged well-integrated youth (not lonely) (27% of sample)

These youth appear to be privileged with high access to educational roles, very low levels of negative labeling, high parental acceptance, minimal parental violence, they are not pessimistic, and they exhibit no feelings of normlessness or powerlessness either in regard to peers or parents.

External correlates: These youth have high scores (at beyond $p = .05$) for internal control and access to occupation. They have seldom been expelled, they are not seen as rude, either by teachers or by peers, and they have very low scores for all of the delinquency

items. They have the lowest scores for emotional isolation, meaninglessness, and aimlessness.

Type V: Rejected delinquent youth (highly lonely) (19% of sample)

This profile consists of high normlessness, extremely low self-esteem, powerlessness over parents, pessimism, parental rejection, severe negative labeling by parents, normative pressure towards deviance, and therefore presents a very bleak profile.

External correlates: This group is characterized by delinquency. This includes vandalism, violence, drugs, and normless delinquent behaviors. The youth are negatively labeled by teachers. They have a clear orientation towards external control. These youth are well above average (at beyond the .05 level) regarding emotional isolation, and self-reported loneliness. They seem to be somewhat more socially isolated than the majority of other youth.

Reliability

The separate K-means analyses in this taxonomic study converge on the almost identical solution. The partition similarity coefficient (of .97) indicates that virtually identical solutions were obtained from the radically different starting points. The inter-centroid distance matrix and cosine matrix (Appendix 9) indicate that each of the five types was almost exactly replicated in these two analyses.

Predictive Validation

In cross classifying this typology against the various indicators of loneliness, we note that almost all of the loneliness variables (the types) differentiated between the types at beyond the .001 level of significance. This included measures of general loneliness, emotional isolation, meaninglessness, and self-reported loneliness, as well as social isolation and other indicators of loneliness. At the same time we acknowledge that the eta squares are generally low. For instance, the eta square of emotional isolation against this typology is only 5.4%, indicating relatively low association.

Structural Aspects of this Typology

The cosine matrix indicates that types IV and V are almost mirror images of each other lying on the opposite sides of the data space.

A PREDICTIVE TAXONOMIC SYSTEM BASED ON THE INDIANA DATA

Measurement Space

Following from the examination of the full predictor variable set with factor analysis and discriminant function analysis against the loneliness criterion typology, we selected the following variables: value for academic recognition; expectation for academic achievement; altruism; pessimism; powerlessness; identity; value for social interaction; value for individuality; expectation for individuality; low expectation for affirmation of self; not normless; environmental pressure towards success, and finally, environmental pressure towards good relationships and popularity.

Description of the Types

Type I: Well integrated non-lonely youth (54% of sample)

Predictive Profile: These youth have both high value and expectation for academic recognition and for social love and affection. There is no indication of pessimism or powerlessness. They also have a tendency towards altruism.

External correlates: The cross classification of this type against the other predictive variables supports the above profile. They have (at beyond the .05 level) strong family support, strong peer support, good relationships with teachers, good time structuring, and internal control.

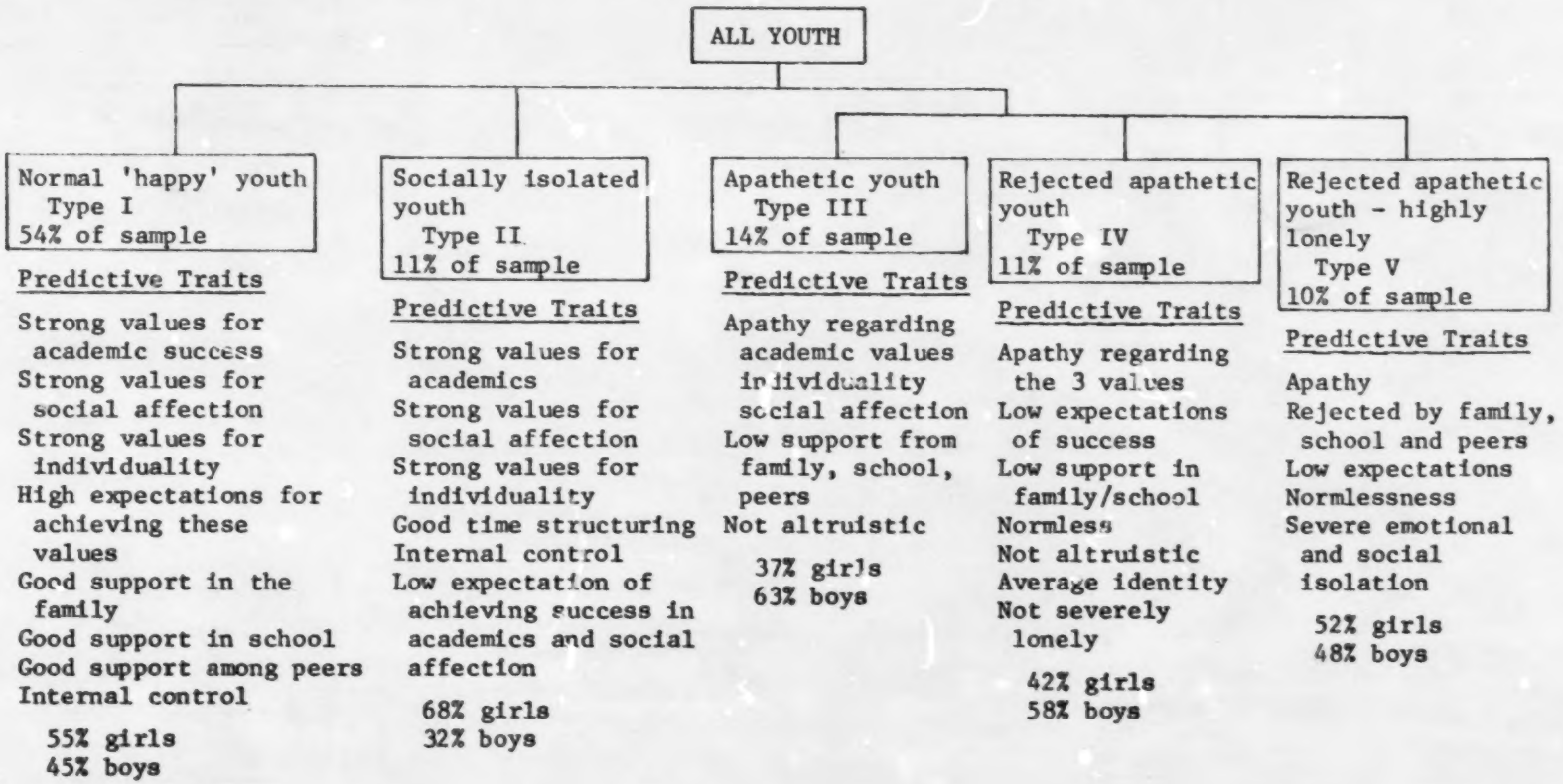
The loneliness profile gained from cross classification of this type indicates that they are not emotionally isolated, not socially isolated, and they have a very low disjunction score. This is the least lonely of the various types.

Type II: Socially isolated youth (11% of sample)

Predictive Profile: The profile of these youth indicates that they do have strong values for both academic recognition, love and affection,

TABLE 9.2

SCHEMATIC TYPOLOGY FOR INDIANA PREDICTIVE TAXONOMY FOR ADOLESCENT LONELINESS



and for individuality. However, they have rather low expectations for academic recognition. They tend to be pessimistic, to have a weak identity, and to have a low expectation for affirmation from others. On the other hand, the profile also indicates that these youth have a tendency towards altruism, and they exhibit both internal control and reasonably good time structuring.

External correlates: The cross classification indicates that these youth have a low expectation of being liked, and in fact they have a rather high score for social isolation and a tendency towards meaninglessness.

Type III: Apathetic youth (14% of sample)

Predictive Profile: These youth are apathetic with regard to academic recognition, individuality, and social popularity. They have a low score for altruism and they have weak environmental pressure from either peers or family towards either success or popularity.

External correlates: The criterion profile tends to support the problematic situation of these youth. They have poor peer support, a feeling that others will not help them out, and a tendency towards emotional isolation. They are not, however, socially isolated.

Type IV: Rejected normless youth (11% of sample)

Predictive Profile: These youth have a very similar profile to Type III in that they have low values for academic success or love and affection. They also have low expectations for academic success, self-affirmation, or love and affection. They have low altruism. However, they have a fairly strong identity and at the same time are highly normless.

External correlates: The cross classification again supports the relative disinterest of these youth. They join almost no clubs, family support is significantly lower than average and they perceive their parents as not being helpful towards them. On the other hand, they are not emotionally isolated and give no clear indication of a high level of loneliness. They fall significantly lower than the other types for school support.

Type V: Rejected and lonely youth (10% of sample)

Predictive Profile: These youth have the weakest support from their environment regarding pressure towards success or pressure towards good relationships. They show no clear interest in academic success, individuality, or love and affection. Furthermore, they show no expectations of achieving these values. There seems to be a general pessimism regarding these youth.

External correlates: The cross classifications support the bleak picture of these youth. They have strong feelings of emotional isolation, social isolation, meaninglessness, poor family support, and a strong feeling that others will not like them and will not help them out.

Validation of this Typology

The cross classifications of the above typology were significant (at beyond p = .05) against social isolation, emotional isolation, meaninglessness, loneliness as a disjunction, and finally a general loneliness scale. It should be pointed out that none of these criterion variables were entered into the construction of this typology. This gives encouraging support for the predictive validity of the typology in regard to loneliness.

Reliability of the Typology

Two separate K-means analyses with radically different starting points were used to determine whether two different analyses could converge on the same solution. The partition similarity coefficient indicates that almost identical centroids were recovered from these two separate analyses. Clusters 1, 2, and 3 occupy somewhat intermediate positions, with Cluster 2 being aligned closer to the privileged Cluster 4, and Cluster 1 being somewhat closer to the lonely Cluster 5. Clusters 2 and 4 are the largest two types, accounting for a large proportion of the total sample.

SUMMARY

Three multivariate approaches were used in predicting adolescent loneliness: multiple stepwise regression; multiple discriminant function analysis, and a predictive taxonomy. For the different data sets, different age and sex groups, and different forms of loneliness, the regressions gave multiple correlations (R) from .52 to .71 with an approximate average R of .60 and just under 40% explained variance. We view these results as encouraging. The significantly predictive variables varied somewhat according to specific age and sex categories. However, the following variables were prominent: internal-external control; environmental support and affirmation; autonomy in time-structuring; strength of identity; optimism regarding academic success and for social popularity; self-esteem; powerlessness; parental rejection; parental violence, and variables dealing with access to desirable social roles.

The discriminant function analyses utilized the same set of predictor variables in the attempt to classify youth into their various levels and types of loneliness (according to the taxonomic systems of Chapter 6). Both environmental and personal variables were found to be highly significant (at beyond .01) in correctly predicting loneliness-type membership beyond the chance level of accuracy. Again, variables entering significantly into this schema were: self-esteem; external control; powerlessness; strength of identity; expectations regarding educational success, social success, and individuality; value for social involvement, and so forth.

Two predictive taxonomic classifications were developed (OYD and Indiana). These are outlined schematically in Tables 9.1 and 9.2. The predictive traits which were found to be associated with the lonely sub-types basically replicate the findings of the regression and discriminant analyses, i.e. low self-esteem, powerlessness, pessimism, external control, rejection in the family, rejection in the school, rejection from desirable social roles and a tendency towards delinquent peers and deviant behavior.

CHAPTER 10

THE ADOLESCENT LONELINESS PROJECT: SYNTHESIS OF FINDINGS, POLICY IMPLICATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

This research project utilized four large scale data sets to examine the epidemiology, correlates, and types of loneliness amongst adolescents aged 10 through 18. The four data sets in question had originally been collected to examine other aspects of adolescent development (see Elliott and Voss 1974, Swanson and Mobley 1972, Elliott et al. 1975, and Brennan, Elliott and Huizinga 1978). Loneliness per se was not the main focus of these studies. However, they each contained extensive information on the social relations of the adolescent with peers, parents, teachers, and so on. Thus, they provided a good base for a secondary analysis which focused specifically on the issue of the extent and nature of adolescent loneliness.

The present statement is a synthesis of the main findings and conclusions of this project. Following the presentation of the findings and their theoretical implications, we deal with some policy implications and suggest some directions for future research on adolescent loneliness.

BACKGROUND LITERATURE REVIEW AND SOME PROPOSED THEORIES OF THE EMERGENCE OF SERIOUS LONELINESS AT ADOLESCENCE

An extended literature review of loneliness is presented in Chapter 2. This review initially deals with the multiplicity of different forms and definitions of loneliness. The symptoms of loneliness are discussed. Evidence is presented from the literature to indicate that loneliness - although it may appear in the pre-adolescent years - emerges with particular severity at adolescence. A series of precipitating changes are examined which appear to be jointly operative in propelling the young person into a state in which there are escalated demands for new social and emotional relations, coupled with the loss or transformation of previously important emotional connections to parents. This state of probable relational deficit is seen to coincide with socially induced expectations for high

levels of social popularity and affirmation. The developmental changes at adolescence, therefore, are conceptualized in the present work as antecedent factors which precipitate the emergence of loneliness. Chapter 2 concludes with a series of theoretical proposals regarding the joint operation of these precipitating developmental changes. This theoretical chapter closes with an examination of an alternative set of antecedent factors which are conceptualized as pre-disposing the person towards loneliness. Such factors include both personal pre-dispositions, and socio-cultural pre-dispositions. Brief presentations are also given of the manner in which the young person may perceive, and cope with, his/her own loneliness.

FORMS, DEFINITION, AND THE MEASUREMENT OF LONELINESS

The project examined a multiplicity of item indicators of loneliness. Both sociometric (number of friends, time spent with friends, etc.) and attitudinal indicators (feelings about relationships, self-reported loneliness, etc.) were available. Various psychometric scaling and factor analytic exercises indicated that loneliness could be fragmented into different forms. Our success varied according to the different data sets. However, it was found that general scales of loneliness could be psychometrically measured, and that the sub-dimensions of social isolation, emotional isolation, sense of meaninglessness, and loneliness as a disjunction, could be constructed. Our analysis, particularly the factor analysis of the OYD data indicators of loneliness, suggested that an alternative set of sub-dimensions of loneliness could be generated according to the social context, i.e., loneliness in the family, in the school, and among peers. The definition and forms of loneliness may become extremely complex when we acknowledge that different relations, in different contexts, may be in different states of deficit. These could be a mapping of the various relationships (R) in different social contexts (C), with an evaluation of the various provisions and deficits (D) within each relation. This might lead to a number of sub-components defined by (D x C x R). Other formulations of loneliness such as meaninglessness and existential loneliness are also discussed in the literature review (Chapter 2).

Internal and External 'Disconnectedness'

The important dichotomy of 'internal bonding' and 'external bonding' was also introduced and was examined in the data. The loss, deterioration, or atrophy, of internal bonding was found in large segments of the youth population characterized by apathy, disinterest and aimlessness regarding major life values and goals (e.g. for education, vocation, individuality, and social affirmation). Such youth, at least in these value domains, may be characterized by meaninglessness. These values and goals, at least at the time of interviewing, appear to have minimal evocative power in regard to these youth. Perhaps there was a time when some of these youth felt energized by these values and the experience of recurrent failure or rejection gradually eroded their internal commitments. Others may have had such poor socialization experiences that they have never developed such internal commitment bonds.

Disconnectedness in terms of the loss/deterioration of external bonds was also found. It was discovered that opportunities for participation in social roles are closed off to many youth. They are branded as failures, stigmatized by parents, teachers, and peers, and relegated to marginal/peripheral social roles. We may note that in many of the 'lonely types' there is a concomitance of both weak internal commitments and weak external commitments (see Chapter 6). The present data does not allow an unequivocal temporal ordering of the processes which lead to deteriorated bonds.

On the Co-existence of Different Forms of Loneliness Amongst Youth

The typological work, in particular, gives profound evidence of the co-existence of different forms of loneliness in certain types of lonely youth (see Chapter 6). Each of the four typological analyses contains sub-types of youth jointly characterized by sociometric isolation, feelings of emotional and social isolation, meaninglessness, boredom, and so on. We have identified these, in each typology, as the seriously lonely types. More subtle patterns were identified in which certain other types were characterized by only one of the various forms of loneliness.

The factor and correlational analysis (Chapter 4) also provided evidence of the positive associations between the different measurement approaches and forms of loneliness. The correlations, however, in more instances were relatively moderate, suggesting that different psychological dimensions were being identified. In the factor analyses the emergence of different and relatively unrelated, factors also supported the contention that loneliness can be fragmented into a number of meaningfully different dimensions. We suggest that the moderate correlations between the different forms of loneliness are consistent with the findings of the typological studies. This consistency stems from the fact that certain of the sub-types were characterized by only one or two of the forms of loneliness. The existence of these partially lonely groups would serve to mediate and reduce the global correlations between the different forms of loneliness.

The Prevalence of Loneliness Amongst the Adolescent Population

Although the various item-indicators of loneliness show wide variation, e.g. agreement to self-reported loneliness (54%), no one to confide in (11%), often feeling restless and blue (24%), boredom (51%), we suggest conservatively that around 20% of youth have serious problems with loneliness. First, 17% of youth in the large OYD sample 'strongly agree' in response to the self-reported loneliness question. Second, each of the typological studies produced seriously lonely sub-types characterized by multiple forms of loneliness. These seriously lonely sub-types presented a dismal profile of high levels of loneliness, coupled with failure, rejection, apathy, disinterest in school, parental rejection, low self-esteem, powerlessness, external control, etc. For the four samples, the percentages of youth falling into such sub-types were 17%, 11%, 20% and 10% respectively. Admittedly, these percentages show substantial variation. However, the second level sub-type in each of the typologies also shows serious symptoms of loneliness (see Chapter 6). The second most seriously lonely sub-type in each typology contains 12%, 25%, 24% and 20%, respectively (see page 102). Therefore, a less conservative estimate could additionally include these youth within the

'lonely' class. This would bring the percentages of lonely youth to 28%, 36%, 44%, and 30% for the four samples (see page 102). These percentages would provide a less conservative general estimate of the extent of serious loneliness amongst youth.

We suggest that readers study the profiles of these various subtypes to decide for themselves whether these classes of youth can be rightly categorized as lonely (see Chapter 6).

IMPLICATIONS FOR A THEORY OF ADOLESCENT LONELINESS: A SYNTHESIS OF FINDINGS

Many of the findings of the present research appear to have implications for the development of theories of the antecedents of loneliness. Our empirical findings, in a sense, are independent of the currently available theoretical positions. They may serve as a set of empirically established relations which may confirm or disconfirm various theories.

Peplau and Perlman (1977) in examining the antecedents of loneliness suggest a number of general factors which can be generally classified as 1) precipitating antecedents and as 2) predisposing antecedents. The former would include precipitating changes or losses in actual social relations, while the latter would include predisposing factors stemming from either the personal characteristics or social conditions within which the individual is located. We suggest that such predisposing factors (either personal or social) generally provide a context within which the precipitating factors such as developmental changes can operate. Predispositions may generally relate to more long-term (or chronic) loneliness while precipitating changes (divorce, death, developmental changes, relocation, separations, etc.) may generally relate to more contingent situations, or temporary loneliness. Clearly, this is not always the case, and certain kinds of changes may inaugurate chronic loneliness. Nevertheless, we suggest that these antecedent processes may be organized into the following model:

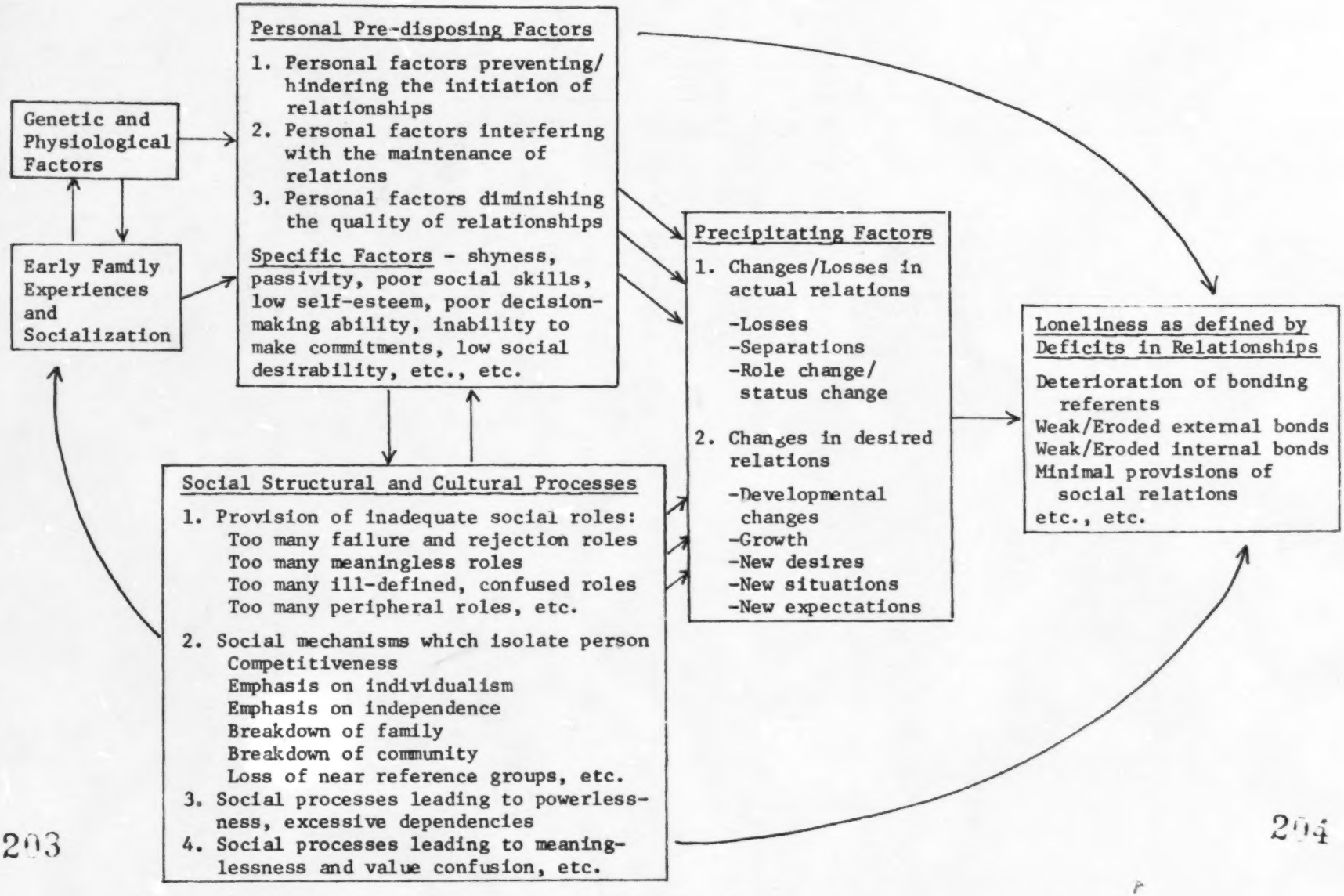

Genetic and Physiological Factors
Early Family Experiences and Socialization
Personal Pre-disposing Factors
1. Personal factors preventing/ hindering the initiation of relationships
2. Personal factors interfering with the maintenance of relations
3. Personal factors diminishing the quality of relationships
Specific Factors - shyness, passivity, poor social skills, low self-esteem, poor decision-making ability, inability to make commitments, low social desirability, etc., etc.
Precipitating Factors
1. Changes/Losses in actual relations
-Losses
-Separations
-Role change/ status change
2. Changes in desired relations
-Developmental changes
-Growth
-New desires
-New situations
-New expectations
Loneliness as defined by Deficits in Relationships
Deterioration of bonding referents
Weak/Eroded external bonds
Weak/Eroded internal bonds
Minimal provisions of social relations
etc., etc.
Social Structural and Cultural Processes
1. Provision of inadequate social roles:
Too many failure and rejection roles
Too many meaningless roles
Too many ill-defined, confused roles
Too many peripheral roles, etc.
2. Social mechanisms which isolate person
Competitiveness
Emphasis on individualism
Emphasis on independence
Breakdown of family
Breakdown of community
Loss of near reference groups, etc.
3. Social processes leading to powerlessness, excessive dependencies
4. Social processes leading to meaninglessness and value confusion, etc.

Figure 10.1

ORGANIZATION OF SOME MAIN ANTECEDENTS OF LONELINESS

It may be noted that the various models of the precipitation of the young person into loneliness due to developmental changes at adolescence (as presented in Chapter 2) would fall into the center boxes of the above model. The pre-dispositions stemming from personal and socio-cultural processes form the general context within which such precipitating changes find their influence.

The above model also indicates that even in the absence of serious precipitating factors, loneliness may appear as a result of the direct influences of either (or both) social factors or personal factors. The levels of loneliness to which particular individual adolescents may be susceptible would be a function of each of the main antecedent factors. If two youth differed markedly on the levels, say, of personal predisposition, then the effect of the identical set of precipitating factors would be expected to vary dramatically. A confident, socially assertive youth may deal with a separation or status change more effectively than a youth characterized by low self-esteem and passivity. The mediating effects of the various complex interactions that are possible in this model may partially explain why many of the empirical correlations between the antecedent variables and loneliness indicators were low or moderate (i.e. around 0.30 or less). We strongly suggest that theoretical explanations of levels of loneliness would have to involve complex multivariate models which allow for higher-order interactions between various antecedent influences. None of the particular antecedent variables operate in a vacuum, but in contrast, work in concert with a number of other important influences. The multivariate studies in Chapter 6 and 9, in particular, serve to illustrate the complex profiles of interacting influences which lead to high levels of loneliness.

We stress that the above model does not deal with cognitive mediators and perceptions of loneliness, and also omits coping strategies. We did not have much data dealing with these two issues. We would, however, agree with the position of Peplau and Perlman (1977) that certain modes of cognition of loneliness, and certain ways of coping, would serve to perpetuate, and render more painful, the experience of loneliness.

We turn now to the empirical findings from the present research project and examine their implications for the above model. In the following we concentrate primarily upon the results of the global correlational analyses (Chapter 7), the contrasts between lonely and non-lonely youth (Chapter 8) and the traits of the 'seriously lonely' types in Chapter 6. The complex intermediate types are, for the moment, ignored.

Evidence for the Importance of Personal Pre-dispositions

The present research offers abundant support for the importance of personal pre-dispositions. Each of the four data sets offers a similar set of findings. The various analyses (correlations, ANOVA's and typologies) have indicated that the following are significantly associated with loneliness:

- Low self-esteem
- Feelings of self-pity
- Feelings of unpopularity
- Pessimism regarding social affirmation or getting respect from others
- Relative disinterest in social popularity
- External rather than internal control
- Feelings of powerlessness regarding family (parental) relationships
- Feelings of powerlessness regarding peer relationships
- Passivity regarding time-structuring
- Passivity when problems or trouble arises
- Social paranoia
- Tendency to mistrust others
- Feeling that others won't help out in times of trouble (can't rely on others)
- Shyness (feel awkward in social situations)
- Selfishness (absence of altruism)

These findings suggest that lonely adolescents tend to dislike themselves, to have a relative dislike of others, and that they are passive, powerless, selfish, and uncomfortable in social situations.

Evidence Regarding the Deterioration (or weakness) of Internal Bonds

'Loneliness' has also been related to a second set of personal predispositions, i.e. the weakness of internal commitment bonds. This would relate to features such as apathy, or disinterest, in other people or other things. The lonely adolescents in the present study were found to be characterized - at significant levels - by the following:

Disinterest in school social activities
General negative attitudes towards school and teachers
Low educational aspirations
Low educational expectations
Apathy regarding educational success
Low occupational aspirations
Apathy regarding social affirmation and popularity
Apathy regarding the achievement of individuality
Dislike and rejection of parents
Normlessness
Aimlessness and boredom
Normative confusion (inability to make decisions, to know what is right)
Weak (diffuse) identity (confusion about personal aims and commitments)

The most lonely youth do not seem to 'care' to the same extent as other youth. They exhibit less caring for their parents, teachers, other youth, their schools, their education and vocational futures, and for themselves, than most other youth. The above profile of apathy, disinterest, and confusion, profoundly indicates their emotional disconnectedness.

Evidence Pertaining to Social Structural Processes

A variety of social structural and cultural processes have been proposed as causes and antecedents of loneliness. Our present research project tapped into a few of these processes. Systemic failure, rejection, scape-goating, stigmatization, role confusion, etc., would be regarded

as among the social structural factors leading to loneliness and isolation. Our analysis has indicated that lonely youth are characterized - at significantly high levels - by the following:

School failure
Expulsion from school
Low grade point averages
Repeated grades
Physical violence by teachers
Negative labeling (stigmatization) by teachers
Labeled by teachers as having 'poor social adjustment'
Labeled by teachers as being 'problems'
Denial/blockage of access to rewarding roles in school
Low expectations of academic success
Feelings of being discriminated against
Peer disinterest, and lack of support for social popularity
Peer disinterest, and lack of support for educational success
Teacher disinterest and lack of support for educational success
Parental disinterest and lack of support for educational success
Parental disinterest and lack of support for social popularity

These features - culled from the four data sets in the present study - suggest that the lonely youth experience themselves as falling into failure and rejection roles. This is accompanied by high perceived levels of scapegoating, stigmatization, discrimination, and denial of access to 'success' roles. The lonely youth appear to see no real support in their environment. Parents, peers, and teachers are all perceived as offering no support or encouragement to their social, personal, or educational success.

An interesting side effect of these social processes seems to be a banding together of the 'failure' types. The data indicates that the lonely types have a tendency to associate with other failing and rejected youth. This process is perhaps critical in the link between loneliness, isolation, and the devleopment of anti-social delinquent peer groups.

Evidence for Weak Involvement in Social Roles (External Bonds)

The notion of weak external bonds focuses upon a relative disengagement or weak behavioral involvement in the activities of conventional social roles. The present set of analyses offers some evidence that lonely youth are also characterized by relatively lower levels of involvement. The following findings pertain to this issue:

Lower time spent on homework
Low, minimal, membership in youth clubs, social clubs, etc.
Lower involvement in social and extra-mural activities of the school
Lower time spent with peers
Lower time (minimal companionship) with parents
Lower dating frequency
Larger amount of time spent alone

It would appear that there is a concomitance between the apathy and disinterest (weak internal commitment bonds) shown by the highly lonely youth, and their actual time and energy involvements (external commitment bonds) in various social roles. Our present evidence points towards a situation of joint weakness in both internal caring bonds and external involvements in conventional social roles.

Evidence for Poor Family Environment and Socialization Practices

The role of parent-child interactions and family environment is perhaps particularly critical in the development of personal pre-dispositions such as shyness, passivity, low self-esteem, etc. We do not have data on early socialization. However, our data sets included a number of indicators of the general family environment and socialization practices of lonely youth. These are as follows:

Low levels of parental nurturance (Bronfenbrenner scale)
Expressive rejection by parents (Bronfenbrenner scale)
Social Isolation as a form of punishment (Bronfenbrenner scale)
Minimal principled discipline (Bronfenbrenner scale)
Over-protectiveness (only for certain sub-types - Bronfenbrenner scale)

Parental violence
Negative labeling and stigmatization by parents
Parental dissatisfaction with the youth
Parental rejection
Perception of the parent as oppressive (strict)
Parental dissatisfaction with choice of friends
Low parental expectation of the youth's success
Low parental encouragement for popularity, success and autonomy

This above profile suggests an absence of emotional nurturance, guidance, or support. The climate is cold, violent, undisciplined, and irrational. Over-protectiveness crops up only in one of the lonely sub-types in the Colorado typological analysis. It would seem unlikely that such a family environment would be conducive to the development of a confident, well-nurtured, socially skilled young person. We suggest that such family environment and parent-child relationship variables are antecedent to the set of personal predispositions. This is the position of many of the theoretical statements (see Loucks 1974; Winnicott 1965). Our data is clearly cross-sectional, and we acknowledge that the present set of associations cannot be taken as giving proof of the antecedent nature of the family experience.

Evidence of Disfunctional Coping: the Connection with Delinquent Behavior

Although we have no evidence regarding mediating processes between the emergence of loneliness and coping strategies, we have some data on the potentially important connection between loneliness and anti-social behavior. Our analysis suggested that the following are associated with loneliness:

Higher associations with other 'failing and rejected' youth
Higher experience of peer pressure towards deviant attitudes and behavior
Acknowledgement of susceptibility to accede to peer pressure to use drugs and/or alcohol
Tendency towards unconventionality, normlessness
Higher levels of attention-getting offenses (panhandling, disturbing the peace)

Higher levels of runaway behavior
Higher levels of vandalism
Higher levels of theft and gambling

Again, we stress that these relationships are cross-sectional and that longitudinal studies would be required to unravel the sequences of causation.

Evidence for the Predictive Power of Present Sets of Variables

The multiple regression analyses, using both personal predisposition variables and social structural process variables give support for the importance of these two sets of influences. Separate analyses, conducted for total samples and for separate age and sex breakdowns, reached highly encouraging levels of predictive accuracy regarding social isolation, emotional isolation, loneliness as a disjunction between desires and expectations, self-reported loneliness, and general loneliness. The multiple correlations varied from 0.56 to 0.70 for these various analyses. We view these results as providing encouraging support for the predictive validity of these sets of explanatory variables. When the same variables were used in discriminant function analyses the linear functions were capable of separating lonely from non-lonely youth at highly significant levels of accuracy beyond chance.

DEFICIENCIES OF THE PRESENT RESEARCH PROGRAM

Looking back upon the research program a number of deficiencies have become more visible. In conducting the research there were many options which we had to omit due to time and cost considerations. Additionally, in conducting our own research and in studying the theoretical literature we have become more aware of practical issues and conceptual points of view of which we were naive at the earlier stages of this program. Our own perspectives have constantly grown and changed. The following features appear to us as among the more important deficiences of our research:

1. Problems in the conceptualization and measurement of loneliness

Our most reliable measures of loneliness were clearly the global scales. The exact sub-dimensions of loneliness represent a more difficult arena - both conceptually and at a measurement level. We experimented with emotional and social isolation, meaninglessness, etc. We acknowledge that an alternative multi-dimensionality stems from the perspective of the specific social contexts, or from the perspective of the particular kind of relational deficit. Other researchers, notably Russell et al. (1978), Sermat and Schmidt (1976) and Loucks (1974) are working in this area. There is clearly a need to develop instrumentation to match the conceptual complexity of loneliness, and for further research to clarify its multi-dimensionality. We made no real attempt in the present study to examine or develop sub-dimensions of loneliness in different social contexts or to assess different kinds of relational deficits. Our factor analytic work indicated the importance of loneliness in the different social contexts. Additionally, the various research findings indicate loneliness in the school, family, and peer contexts. New research might fruitfully be directed at these issues.

2. Problems stemming from reliance on cross-sectional data

We relied exclusively on four large cross-sectional data sets for the present work. A fifth data set - involving two time periods - was available. However, due to serious measurement problems and missing data we were unable to utilize this longitudinal data set. The attempt to unravel developmental sequences leading to loneliness would be greatly facilitated by the use of longitudinal data. We made attempts to circumvent the longitudinal data requirement by the use of an age gradient analysis and by the typological studies. These, however, remain only suggestive of certain causal processes and are therefore useful only for the generation of theoretical hypotheses. Confirmatory work would require longitudinal data to more thoroughly examine the developmental pathways into loneliness.

3. Problems in the synthesis of findings

Our above attempt to draw together the implications and findings from the analysis of four separate data sets is useful in painting a

global composite picture of the lonely adolescent. Nevertheless, we would have preferred to have ALL of this material within a single data set. This would have allowed a more rigorous examination of the full power of the theory in terms of internal consistency and predictive validity. We were unable to do such an analysis because of the fact that different critical variables were spread across the four different data sets. No single data set contained ALL the necessary variables. We actually conducted a number of causal modeling exercises. However, each of these was too much of a partial representation of the full set of antecedent influences.

We do stress, however, that there was an encouraging level of consistency across the four sets of data. Where variables were jointly present across the data sets their relationships to loneliness were consistently in the same direction (e.g. low self-esteem, powerlessness, external control, negative stigmatization, parental rejection, etc.).

4. Problems of minimal or partial measurement of certain variables

In a number of instances across our four data sets we were reliant on single item indicators for certain important variables. This was the case for altruism (Indiana data); shyness and boredom (OYD data). In other instances (e.g. 'identity confusion' in the Indiana data) we had only general global measurement of a complex multi-dimensional phenomenon. Since this study was conceived of as an 'exploratory study', and since these phenomena were not the main focus of our study, these measurement deficiencies are, perhaps, less serious than they might have been otherwise. Our conceptualizations of factors such as identity and shyness have been broadened considerably since becoming aware of the work by Zimbardo (1977) and others; and of the work on adolescent identity by Matteson (1975), Marcia (1966), Constantinople (1969), and others. In new studies of adolescent loneliness, particularly confirmatory studies, the more thoroughly elaborated measurement approaches of these researchers would be highly beneficial. Within the realm of the present exploratory study we believe, however, that the importance of these factors has been demonstrated.

IMPLICATIONS FOR POLICY, TREATMENT AND SERVICES

The present research goes only part of the way towards a well validated theory of adolescent loneliness. It is therefore limited in its policy and treatment implications. A good theory of adolescent loneliness would provide a coherent framework around which appropriate intervention strategies could be focused. Without such a rationale, the provision of counseling and other intervention strategies tends to degenerate into an essentially ad hoc affair. However, there seems to be enough information emerging from this project to suggest some tentative policy and treatment-relevant implications. These are as follows:

1. Loneliness is a massive social problem

The research indicates that loneliness is a massive social problem. From a very conservative 10% to a more probable 30% or 40% of the youth population, it is clear that an enormous number of adolescents are beset with loneliness, boredom, isolation, meaninglessness, and the unhappy emotional concomitants of these states. Our work on typological mapping indicates the widespread co-existence of these multiple forms of loneliness amongst a large segment of the adolescent population. This represents an enormous problem of unhappiness, unfulfillment, and unutilized potential.

2. Loneliness is related to anti-social sentiments and delinquency

Although we have not established the exact causal connection and can only hypothesize at this stage, the present research has given a number of indications of the association between loneliness and vandalism, drug use, alcohol use, theft, and other delinquent behaviors. The mediating connections seem to be rejection to peripheral meaningless and 'failure' social roles, the erosion of internal commitment bonds, frustration, and a higher level of association with other failures and rejects. The prior clinical research on psychopathology - reviewed in Chapter 2 - also suggested that loneliness is associated with a large number of more serious pathologies (suicide, obesity, shoplifting, drug abuse, alcoholism, etc.). The present research supports this contention, particularly in the area of various forms of delinquency. We acknowledge

that the connection between loneliness and delinquency is complex and that it may be different for boys and girls, and for different age groups. This work, however, demonstrates that loneliness is implicated in the more visible social problem of juvenile delinquency, and probably in many other specific behavioral and emotional pathologies.

3. Intervention and treatment objectives

The research findings suggest some generalized objectives for intervention. Since there may be a large number of intervention strategies to achieve any of these objectives, we will focus only on the general objectives:

A. The strengthening of social integration bonds for ALL youth - We note that lonely youth were characterized by significant scores for deficiencies in social integration bonds. Interventions around this objective would focus upon the interaction of the youth within the major social institutions. Certain youth would have to be protected from the patterned rejection and stigmatization which appears to take place in certain institutions, particularly in the school and the family. All processes which deny positive roles to large segments of youth would have to be modified. Modes of positive participation, positive labeling and involvement would have to be found for those youth who are currently rejected into failing or peripheral roles.

B. The strengthening of internal commitment bonds - The pervasive meaninglessness, apathy, and disinterest of lonely youth represents an exceedingly difficult problem. The apathy of many of them seems justified when seen in the context of meaningless social roles, meaningless jobs, rejection in school, disinterested teachers, and so on. The discovery of meaningful challenges and relationships can galvanize youth into enormously creative, fulfilling, and productive directions. Psychotherapy would conventionally aim to modify the negative attitudes, beliefs, normative values, and other internal commitments by which the youth relates to the conventional social institutions of the

school, family, work, and community. Feelings of apathy, disinterest, boredom, low self-esteem, aimlessness, and so on, represent a plethora of broken, deteriorated, or ill-developed commitment bonds to both social values, personal values, and other persons. The task of society seems to be, in a nutshell, to provide adolescents something meaningful to care about. The absence of caring is not simply a deficit in the caring abilities of young persons; it is also a result of rampant and pervasive meaninglessness and confusion in the society at large. The symbolic poverty which Klapp (1959) and others have identified seems to be implicated in the aimlessness, apathy, and loneliness of large segments of American youth. They simply can't find people or things to 'care about'. This is a particularly painful pathway into loneliness and seriously indicts contemporary American society for the general deterioration of the symbolic values, processes, and heroes which it presents to young people as worthy goals to strive towards, or worthy persons to admire and emulate. Many young persons are busily discovering things to care about on their own, e.g. religious cults, sports heroes, pop stars, fashions and fads, fun (of various kinds), kicks, drugs, and so forth. Many of these operate to further erode and attack the remaining internal bonds to conventional society. The costs of many of these alternatives seems to be enormous - both financially, psychologically, and physically.

C. The strengthening of young people's abilities to initiate and maintain satisfactory relationships - The whole realm of personality pre-dispositions related to loneliness would seem to provide intervention objectives for conventional psychotherapies, e.g. to improve self-esteem, eliminate shyness, improve assertiveness and autonomy, improve decision-making power, and so on.

We stress that our research did not examine the coping strategies which people generally use in dealing with loneliness and that a careful examination of such coping strategies - especially the ones which don't work - would have important treatment implications.

NEW DIRECTIONS FOR RESEARCH ON ADOLESCENT LONELINESS

In conducting the present research program, and in reviewing its various deficiencies, we suggest the following topics as useful directions for further research on adolescent loneliness.

Research to Unravel Particular Developmental Sequences: Longitudinal Studies

In our research there is demonstration of the weakness of adolescent bonding (both internal commitment and external involvement bonds). Many concomitant features of these weak social bonds have been established (e.g. in the area of personality, and social institutions, and so forth). More work is needed to unravel developmental sequences which may lead to the emergence of such loneliness. For example, lonely youth are found to have very low expectations of social popularity. Their loneliness may simply be a self-fulfilling prophecy. The temporal sequence of low expectations, poor social acceptability, and so forth, clearly remains to be clearly established by means of longitudinal analysis. Longitudinal data would be required to fully explicate and describe the exact temporal ordering of the various factors which are involved in the erosion or weakness of such bonds as family, peer and school, and so forth. This is a task for future research. It has important implications for the development of intervention strategies geared to the particular stage which the youth may have reached in the developmental process.

Exploring the Connection Between Loneliness and Anti-Social Behaviors, Drug Use, and So Forth

The present research has clearly demonstrated a recurrent association between certain types of lonely youth and features which are associated with delinquency and anti-social behavior (e.g. normlessness, peer pressure towards delinquency, drug abuse, vandalism, and so forth). We believe that this connection is complex and is mediated by institutional rejection, denial of access to successful social roles, frustration and anger, powerlessness, and so forth. Many of these features have been

found to be characteristic of delinquent youth. There also seems to be a sex difference in which there is the possiblity that loneliness amongst boys more readily leads to delinquency than does loneliness amongst girls. Some of the correlations for boys between loneliness and delinquency were stronger than amongst girls. A further mediating feature between loneliness and delinquency may be the adoption of certain disfunctional coping strategies. This again brings into prominence the manner in which persons deal with the experience of loneliness. Drug abuse and alcoholism in particular may fall into the passive escapist mode of dealing with the pain of loneliness. In the present research we have a smattering of information regarding the connection between loneliness and such modes of anti-social behavior. Clearly, an important line of research would be to examine this connection in greater depth. A policy implication of this work may be better preventative approaches to the emergence of drug abuse, alcoholism, and some modes of delinquency, e.g. acting out behavior, attention-getting delinquency, and so forth.

Epidemiology and Taxonomic Mapping

To our knowledge, the taxonomic studies presented in the current research project are the first such multivariate taxonomic systems to map levels of loneliness in the present adolescent population. The taxonomic studies have been particularly fruitful in identifying certain non-global associations with loneliness. We perceive this to be a promising line of research. The four taxonomies presented in this research show a fairly high degree of consistency with each other. However, there is much room for improvement both in the development of better and more elaborated measures of the various forms of loneliness and in the exploration of other kinds of predictor and explanatory variables. Improvements in the measurement spaces within which taxonomic studies can be conducted would clearly be one avenue for the improvement of the taxonomic description of adolescent loneliness.

Coping Strategies and Mediating Cognitions of Loneliness

In our own research we had minimal information regarding mediating cognitions and coping strategies. Other researchers, in particular

Peplau, Perlman, and others at UCLA, have been conducting exciting research in the area of attribution theory, mediating cognitions, and coping strategies. This seems to be a particularly fruitful line of research. The findings of the present research program regarding passivity, powerlessness, and low self-esteem support the suggested theoretical framework of Peplau and Perlman in that the more passive and lower self-esteem type of lonely person would be more likely to adopt an internal blaming stance. Such internal blaming, coupled with passivity and low self-esteem, may push the person in the direction of more passive and dysfunctional coping strategies. Much work needs to be done on examining the various modes of response and coping with loneliness.

The Relationship Between Socio-cultural Processes and Loneliness

The present research has indicated that the youth's experience within social institutions such as the school and family, and his expectations for success in these institutions is extremely low. In comparing the predictive power of environmental variables with the personal variables it was found that the two domains of variables had rather similar levels of predictive power. This indicates the importance of the socio-cultural processes in relation to the mass production of loneliness. In the present research program we have only a few indicators of these processes. Much more work of an empirical nature might be done to examine socio-cultural processes which create isolation and loneliness. Most of the prior work in this topic seems to have been mainly theoretical and speculative. A great many issues have been raised in the theoretical and sociological literature regarding social structures and loneliness. Some of these are as follows:

- Socialization for competitive individualism
- Socialization for narcissism and consumption
- Socialization for 'other directiveness'
- Social processes which undermine personal identity
- Social processes which undermine self-knowledge
- Social processes which break down social cohesion (family breakdown, community breakdown, the loss of reference groups, etc.)

- The breakdown of values, norms, and internal commitment bonds
- Inadequate provision of acceptable social roles (meaningless roles, marginal roles, empty roles, obsolete roles, ill-defined roles, failure, loser, and rejection roles, etc.)
- Institutional isolating mechanisms (structured failure, blocked access to social roles, negative labeling and stigmatization, etc.)
- Socialization of self-defeating coping strategies
- Socialization to be 'disconnected' (mass TV marketing and advertising)
- Socialization of erroneous or false belief systems
- Social factors leading into passivity and powerlessness, and so on.

The above list of social processes is a rather eclectic collection of socio-cultural processes which have been mentioned in the literature as relating to loneliness. We see these processes as being fundamentally related to a number of very general themes. A first theme is the destruction of internal commitment bonds. Many adolescents are surrounded by persons, pursuits, vocations, and values about which they simply feel bored, apathetic, or even antagonistic. The high level of boredom amongst youth in our present studies would support this position. A second general theme is the existence of socio-cultural processes within our institutions which isolate and reject large segments of the adolescent population. These youth are rejected to meaningless, boring, empty, and marginal social roles. This second set of processes would tend to destroy or erode the possibility of youth moving into healthy caring roles. Many youth are simply denied access to such positive roles. In the classical strain theory this would lead to frustration, anger, and perhaps an eventual erosion of their pre-existing enthusiasm for the values embodied in these roles. More empirical studies of these various socio-cultural processes would appear to be required, especially to provide guidelines for social interventions aimed to reduce loneliness.

Continuing Research on the Conceptualization and Measurement of Loneliness

It is unclear exactly how loneliness ought to be measured for different research purposes. Our present work has indicated the viability of identifying loneliness within separate social contexts and also in terms of the specific deficits associated with different relationships. Factor analytic work tends to collapse different forms of deficits into one general measure of loneliness, yet these different deficits are conceptually quite distinct. It would seem that more work could be done on both the conceptualization of loneliness and on the development of instrumentation to tap into the different types of deficits. This type of work would be particularly important for epidemiological purposes and for further theoretical work on general antecedents of different forms of loneliness.

Research Into the Background of Powerlessness and Passivity

Powerlessness and passivity has been demonstrated in the present research to be critical in differentiating generally lonely from generally non-lonely youth. Some family interaction variables have emerged in the present research as probably important in the emergence of powerlessness. Additionally, however, social processes may relate to powerlessness. Given the critically important position of this personal disposition, it would appear that a particularly fruitful line of research could be the examination of the antecedents of powerlessness, external control, and passivity.

Prediction and Causal Modeling in Regard to Loneliness

The findings of the present research program have been fairly encouraging regarding the prediction of loneliness. The fragmented nature of our data sets, however, meant that many important variables were not available for a general predictive study since they were located in different data sets. This hindered our approach to creating a general causal model of loneliness. Given that multiple correlations of around .60 were obtained in a number of our different data sets, we believe that

other researchers may obtain exciting advances in the prediction of loneliness by the joint use of many of these variables. This may lead into the development of more elaborated causal models of loneliness. We suggest a word of caution, however, regarding global causal models. This stems from the suggestion in the present research that different types of loneliness may be emerging and that different types may require different causal modeling. Attempts to generate global models may fail by commiting the aggregative fallacy, i.e. by mixing up different loneliness types into one aggregated model. We suggest, therefore, that care should be taken to insure that there is some separation into relatively causally homogeneous groups prior to the study and examination of different causal models.

The above represent to us some promising research directions which we have noted in conducting our present research program. It seems clear that a great many opportunities exist for further research into the nature of adolescent loneliness. The present research program, with its relatively broad coverage of predictor and explanatory variables, has pointed in a fairly large number of promising directions for future research. Ultimately, work in these different directions would have to be synthesized to provide a more coherent understanding of the problem of loneliness amongst the adolescent population.

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